

Peer Revision

Reviewers	University	Date of Revision
- Prof. Dawlat Salem	Cairo	10/12/2011
- Prof. Ahmad K. Mansur	Mansura	28/11/2011

Program Specification of medical Doctorate Degree of Ophthalmology

Sohag University

Faculty of medicine

A- Basic Information

1. Program title: MD in ophthalmology.
2. Program type: Single
3. Faculty: Faculty of Medicine
4. Department: ophthalmology department
5. Coordinator: Prof. Hatem Gamal Amar
6. Assistant coordinator: Marwa Mahmoud Abdellah
7. External evaluator: Prof. Ezz Eldeen Galal.
8. Last date of program specifications approval: Faculty council No. "317",
decree No. "1533" dated 17/12/2018.

B- Professional Information

1. Program aims:

The aim of this program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary for providing further training and practice in the field of ophthalmology including: through providing::

- 1- Recent Scientific knowledge essential for the mastery of practice of ophthalmology according to the international standards.
- 2- Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving and decision making skills in the field of ophthalmology.
- 3- Provision of sound ethical principles related to ophthalmology.
- 4- Active participation in community needs assessment and problems identification.
- 5- 5-Maintainance of learning abilities necessary for continuous medical education.
- 6- 6- Upgrading research interest and abilities.

2. Attributes of the post graduate:

1. Efficient in carrying out the basics and methodologies of scientific research in Ophthalmology.
2. The continuous working to add new knowledge in his field.
3. Applying the analytical course and critical appraisal of the knowledge in his specialty and related fields.
4. Merging the specialized knowledge with the other related knowledge with conclusion and developing the relationships in between them.

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4. Merging the specialized knowledge with the other related knowledge with conclusion and developing the relationships in between them.

5. Showing a deep awareness with the ongoing problems, theories, and advanced sciences in his specialty.
6. Determination of the professional problems and creating solutions for them.
7. Efficient in carrying out the professional skills in his specialty.
8. Using advanced suitable technologies which serves his practice.
9. Efficient communication and leadership of team work in his specialty.
10. Decision making through the available information.
11. Using the available resources efficiently and working to find new resources.
12. Awareness with his role in the development of the society and preserve environment.
13. Behaving in a way which reflects his credibility, accountability, and responsibility.
14. Keeping continuous self development and transfer his experiences and knowledge to others.

3. Intended learning outcomes (ILOs)

a) Knowledge and understanding:

By the end of the study of doctoral program in ophthalmology the Graduate should be able to:

- a1. Mention the recent advances in the normal structure and function of the human eye on the macro and micro levels.
- a2. Enumerate recent advances in the normal growth and development of the human eye.
- a3. List the recent advances in the abnormal structure, function, growth and development of human eye
- a4. Describe the optics of the eye
- a5. Enumerate recent advances in the natural history of ophthalmologic diseases.
- a6. Enumerate recent advances in the causation of ophthalmologic diseases.
- a7. Enumerate Methods of eye health and preventing its illness.
- a8. List the clinical picture and differential diagnosis of ophthalmologic illnesses.
- a9. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses.
- a10. Describe recent advances in the various therapeutic methods/alternatives used for ophthalmologic diseases
- a11. Enumerate the principles, methodologies, tools, and ethics of scientific research
- a12. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology
- a13. Enumerate the principles and fundamentals of quality assurance of professional practice in the field of ophthalmology
- a14. Enumerate the effect of professional practice on the environment and the methods of environmental development and maintenance.

- a15. Enumerate the recent advance in data collection presentation and analysis in the field of ophthalmology
- a16. Describe the recent advances in biostatistics and computer.
- a17. Enumerate the principles of evidence based medicine.
- a18. Enumerate the screening of diseases and sensitivity, specificity, and predictive values of screening tests.

b) Intellectual skills

By the end of the study of doctoral program in ophthalmology the Graduate should be able to:

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for ophthalmologic diseases.
- b2. Select from different and recent diagnostic alternatives the ones that help reaching a final diagnosis for ophthalmologic problems.
- b3. Link between knowledge for Professional problems' solving
- b4. Conduct a research study and /or write a scientific study on a research problem.
- b5. Assess risk in professional practices in the field of ophthalmology.
- b6. Plan to improve performance in the field of ophthalmology.
- b7. Identify ophthalmologic problems and find solutions.
- b8. Analyze reading of research and issues related to the ophthalmology
- b9. Understand how to Collect and verify data from different sources
- b10. Innovate and create research methods to different ophthalmology problems
- b11. Criticize researches related to ophthalmology
- b12. Formulate scientific papers in the area of ophthalmology

c) Professional and practical skills

By the end of the study of doctoral program in ophthalmology the Graduate should be able to:

- c1. Master of the basic and modern professional clinical and surgical skills in the area of ophthalmology.
- c2. Write and evaluate medical reports.
- c3. Assess methods and tools existing in the area of ophthalmology.
- c4. Perform recent advanced technological methods in collection, analysis and interpretation of data of patients.
- c5. Use appropriate technologies used in different ocular surgeries.
- c6. Train junior staff through continuous medical education programs.
- c7. Design new methods, tools and ways of professional practice.

d) General and transferable skills

By the end of the study of doctoral program in ophthalmology the Graduate should be able to:

- d1. Communicate effectively by all types of effective communication.
- d2. Use information technology to serve the development of professional practice.
- d3. Assess himself and identify his personal learning needs.
- d4. Use of different sources to obtain information and knowledge.
- d5. Develop rules and indications for assessing the performance of others.
- d6. Work in a team, and team's leadership in various professional contexts.
- d7. Manage time efficiently.
- d8. Learn himself continuously.

4. Academic standards

Sohag Faculty of Medicine adopted the general National Academic Reference Standards (NARS) provided by the national authority for quality assurance and accreditation of education (naqaae) for postgraduate programs. This was approved by the Faculty Council decree No.6854, in its session No.177 Dated 18/5/2009. Based on these NARS; Academic Reference Standards (ARS) were suggested for this program. These ARS were approved by the Faculty Council decree No.7528 in its session No. 191, dated 15/3/2010. The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its session No.60. Dated 26-12-2011

5. Curriculum Structure and Contents

5.a- Program duration: 7 semesters (3.5) years

5.b- Program structure

5.b.i- No. of hours per week:

Subject	hours /week		
	Lectures	Practical / surgical	Clinical
<u>First Part:</u>			
Minors :			
Bio Statistics & Computer	2	2	
Research Methodology	2	2	
Primary medical reports	1	2	
Basic sciences:	.5	1.5	
Anatomy			
Physiology	0.5	--	----
Optics	1	--	----
Pathology	1	--	----
<u>Second Part:</u>			
Medical ophthalmology	2.5	-----	2.25
Surgical ophthalmology	2	3	-----

code	Item	No	%	
b.i	Total credit hours	Compulsory	90	100
		Elective	0	0
		Optional	0	0
b.iii	credit hours of basic sciences courses	7	7.8	
b.iv	credit hours of courses of social sciences and humanities	0	0	
b.v	credit hours of specialized courses:	60	66	
b.vi	credit hours of other course			
b.vii	Practical/Field Training	8	8.9%	
b.viii	Program Levels (in credit-hours system):			
	Level 1: 1 st part	15	16.7	
	Level 2: 2 nd Part	52	57.8	
	Level 3: Thesis	15	16.7	

6. Program courses: 9 compulsory courses

6.1- Level of program

Semester...1.....

First part

a. Compulsory

Course Title	Total No. of hours	No. of hours week/			Program ILOs covered (by No.)
		Lectures	Practical	clinical	
Biostatistics + Computer	2.5	1	1.5		a15, a16,b8, b9 ,c4 ,d2,d4
Research Methodology	.5	.5	---		a11,a17, a18, b4,b10, b11, b12, c1,c7,d4,d6
Primary Medical Report	.5	0.5			a12,b1,c2,d4
Anatomy	2	.5	1.5		a1,a2,b1,b6,c1,d5
physiology of the eye	.5	.5			
optics of the eye	1	1	-----		a4,a9,a10,b2,b6,b7,b8,c3,c6,d1
pathology of the eye	1	1	-----		a3,b1,b6,c1,c2,c5,d3, d5

a. Compulsory

<u>Second part</u>					
Medical ophthalmology	4.75	2.5	---	2.25	a5,a6,a7,a8,a9,a10,a13,a14, b1,b2,b5,b6,b7,b8,b9,c1,c3 ,c5,c6,d1,d3,d4,d5,d6,d7
Surgical ophthalmology	5	2	3	-----	a1,a5,a6,a7,a8,a9,a10,a13,a14,b1,b2,b3,b5,b6,b7,b8,b9 ,c1,c3,c4,c5,c6,d1,d3,d4,d5 ,d6,d7,d8

7. Program Admission Requirements

I- General Requirements.

- Candidate should have either MBBch degree from any Egyptian Faculty of Medicine or Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
- Candidate should know how to speak & write English well
- Candidate should have computer skills.
- Follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (44), dated 6/1/2010.

II- Specific Requirements

- Master degree in ophthalmology with at least "Good Rank".

8. Regulations for Progression and Program Completion

Duration of program is 90 credit hours (≥ 7 semesters ≥ 3.5 years), starting from registration till acceptance of the thesis; divided to:

First Part: (15 Credit hours \geq 6 months \geq 1 semester):

- Program-related basic science, Research Methodology, Ethics & medical reports, Biostatistics and computer.
- At least six months after registration should pass before the student can ask for examination in the 1st part.
- Two sets of exams: 1st in October — 2nd in April after fulfillment of the credit hours.
- At least 60% of the written exam and 60% of the total oral and practical/clinical is needed to pass in each course.
- For the student to pass the first part exam, a score of at least 60% (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only.
- GPA of \geq 1.3 is needed to pass this level (semester).

Second Part: (50-60 Credit hours \geq 24 months= 4 semesters):

- Program related specialized science of ophthalmology courses. At least 24 months after passing the 1st part should pass before the student can ask for examination in the 2nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (8 Credit hours; with obtaining \geq 75% of its mark) is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; the credit hours of the logbook are calculated as following:
 - Each Cr. Hr.= 60 working Hrs.
 - Logbook= 8 Cr. Hr. X 60 working Hrs = 480 Working Hrs.
 - Collection of working Hrs. is as following:

Activity		Hrs
Grand rounds	اجتماع علمي موسع	٦
Training courses	دورات تدريبية	12/ day
Conference attendance	حضور مؤتمرات علمية داخلي خارجة	١٢/day 18/day
Thesis discussion	حضور مناقشات رسائل	٦
Workshops	حضور ورش عمل	١٢/day
Journal club	ندوة الدوريات الحديثة	٦
Seminars	لقاء علمي موسع	٦
Morbidity and Mortality conference	ندوة تحليل المخاطر المرضية أو الوفاة	٦
Self education program	برنامج التعليم الذاتي	٦

- Two sets of exams: 1st in October - 2nd in April.
- At least 60% of the written exam is needed to be admitted to the oral and practical exams.
- 4 times of oral and practical exams are allowed before the student has to re-attend the written exam.

Third Part (Thesis) (15 Credit hours =24-48 months=4-8 semester):

1. Documentation of the subject should not be delayed for > 1.5 years after registration.
2. Could start after registration and should be completed, defended and accepted after passing the 2nd part final examination, after passing of at least 24 months after documentation of the subject of the thesis and after publishing of at least one paper from the thesis in a specialized peer-reviewed journal.
3. Accepting the thesis is enough to pass this part.

9. Methods of student assessments:

Method of assessment	weight	The assessed ILOs
1-Research assignment		- General transferable skills, intellectual skills
2-Written Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	50%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
3-OSCE/ OSPE	50%	-Practical skills, intellectual skills, general transferable skills
4-Structured Oral Exams		- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Biostatistics & Computer: Written Exam (2 hours) + Structured oral Exam+ OSPE
- Research Methodology: Written Exam (2 hours) + structured oral Exam+ OSPE
- Primary medical reports: Written Exam (2 hour) + Structured oral Exam+ OSPE
- Anatomy: Written Exam (2 hours) + Structured oral Exam
- Medical Physiology: Written Exam (2 hours) + Structured oral Exam
- Pathology: Written Exam (2 hours) + Structured oral Exam
- Optics of the eye: Written Exam (2 hours) + Structured oral Exam

Part II:

- Medical ophthalmology and Surgical ophthalmology: Two Written Exams (3 hours for each) + one written exam containing commentary (1.5 hours) + OSCE + Operative Exam + Structured oral Exam.

10. Evaluation of program intended learning outcomes

Evaluator	Tool	Sample
1- Senior students	questionnaire	8
2-Alumni	questionnaire	9
3-Stakeholders	questionnaire	2
4-External evaluator(s)(External examiner(s))	report	1
5- others		

Course Specifications of Applied Biostatistics in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: MD degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Community Medicine and public Health department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specification of applied biostatistics in MD degree in Ophthalmology

Code: COM0522-300

Title	Lecture	Practical	Total	Credit
Applied Biostatistics	30	30	60	3

B. Professional Information

1. Overall Aims of Course

1. To influence the students to adopt an analytical thinking for evidence based medicine
2. To use precisely the research methodology in researches and computer programs.

2. Intended Learning Outcomes of Courses (ILOs)

a) **Knowledge and understanding:**

By the end of the course, the student is expected to be able to:

- a1. Enumerate different programs of analysis of data and statistical packages
- a2. Define the recent advances of sources of data and methods of collection.
- a3. Summarize data, construct tables and graphs
- a4. Calculate measures of central tendency and measures of dispersion
- a5. Describe the normal curves and its uses
- a6. Illustrate selected tests of significance and the inferences obtained from such tests
- a7. Illustrate selected tests of significance for parametric and non parametric inferences
- a8. Identify factor analysis and discrimination analysis

b) **Intellectual Skills**

By the end of the course, the student is expected to be able to:

- b1. Understand how to Collect and verify data from different sources
- b2. Analyze and interpret the results of research using common statistical tests.

c) Professional and Practical Skills:

By the end of the course, the student is expected to be able to:

- c1. Perform recent advanced technological methods in collection, analysis and interpretation of data of patients.

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d1. Use appropriate computer program packages.
d2. Use of different sources for information and knowledge about biostatistics

3. 3- Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Recent advances in collection, analysis and interpretation of data	5	2	3
-Details of Tests of significance: Proportion test	5	2	3
Chi-square test	5	2	۳
Student T test	6	3	۳
Paired T test	6	3	۳
-Correlation	6	3	۳
-Regression	7	3	4
-ANOVA test	5	3	2
-Discrimination analysis	5	3	2
Factor analysis	5	3	2
- parametric and non parametric tests	5	3	2
Total	60	30	30
Credit	3	2	1

4. Teaching and Learning Methods

- 4.1- Lectures
4.2- Practical sessions
4.3- Computer search assignments
4.4- Computer application

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Intellectual skills, Knowledge, General transferable skills
5.4Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1	Final written exam	Week: 24
Assessment 2	Final Structured Oral Exam	Week: 24
Assessment 3	Attendance and absenteeism throughout the course	
Assessment 4	Computer search assignment performance throughout the course	

Weighting of Assessments

Final-term written examination	50	%
Final Structured Oral Exam	50	%
Total	100	%

Formative only assessments: attendance and absenteeism and Computer search assignments performance.

6. List of References

6.1- Essential Books (Text Books)

1-Maxy-Rosenau Public health and preventive medicine, 2008.,Robert Wallace, publisher McGraw-Hill Medical; 15 edition.

6.2- Recommended

Books

- 1- Dimensions of Community Based projects in Health Care, 2018. Arxer, Steven L., Murphy, John W.; 1st edition.
- 2- Parks Text Book of Preventive & Social Medicine. 2017., K. Park. BanarsidasBhanot Publishers; 23 edition.
- 3- Clinical Epidemiology: The Essentials, 2013, Robert F., Suzanne W. Fletcher, Grant S., publisher Lippincott Williams & Wilkins; 5 edition.

6.3- Periodicals, Web Sites, ...etc

- 1-American Journal of Epidemiology
- 2-British Journal of Epidemiology and Community Health
WWW. CDC and WHO sites

Facilities Required for Teaching and Learning:

1. Adequate infrastructure including:
2. Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
3. Teaching tools including: screens ,computers, data show, video players digital, white boards, color and laser printers

Course Coordinator: Dr/ Foad Metry Atya

Head of Department: Prof/ Ahmed Fathy Hammed

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specifications of Research Methodology in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: MD degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Community Medicine and public Health department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specification of Research methodology in MD degree in Ophthalmology

Code: COM0522-300

Title	Lecture	Practical	Total	Credit
Research Methods	30	30	60	3

B. Professional Information

1. Overall Aims of Course

The aim of this program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of Research methodology and necessary for providing further training and practice in the field of ophthalmology including: through providing:

- a. Upgrading research interest and abilities.
- b. To influence the students to adopt an analytical thinking for evidence based medicine

2. Intended Learning Outcomes of Courses (ILOs)

a) **Knowledge and understanding:**

By the end of the course, the student is expected to be able to:

- a1. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
- a2. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
- a3. Describe the study design, uses, and limitations.
- a4. Enumerate the recent advances of principles, methodologies, tools and ethics of scientific research.
- a5. Explain the strategies and design of researches.
- a6. Describe bias and confounding.
- a7. Describe sampling techniques and list advantages of sampling

b) **Intellectual Skills**

By the end of the course, the student is expected to be able to:

- d1. Conduct research studies, that adds to knowledge.
- d2. Formulate scientific papers in the area of ophthalmology
- d3. Innovate and create research methods to different ophthalmology problems

d4. Criticize researches related to ophthalmology

c) Professional and Practical Skills:

By the end of the course, the student is expected to be able to:

c1. Master the basic and modern professional skills in conducting researches in the area of public health and community medicine.

c2. Design new methods, tools, and ways of professional practice.

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

d1. Use of different sources for information and knowledge to serve research.

d2. Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

3. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Details of epidemiological studies (case control, cohort and cross sectional)	8	4	4
Clinical trials, Quasi experimental study	8	4	4
Bias and errors	8	4	4
Setting a hypothesis	8	4	4
Recent advances in screening	4	2	2
- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	8	4	4
Setting an objective - Critical thinking	8	4	4
Formulation of papers	8	4	4
Total	60	30	30
Credit hours	3	2	1

4. Teaching and Learning Methods

4.1- Lectures.

4.2- Computer search assignments

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Intellectual skills, Knowledge, General transferable skills
5.4Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1	Final written exam	Week: 24
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Computer search assignment performance throughout the course

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6.3- Periodicals, Web Sites, ...etc

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2-British Journal of Epidemiology and Community Health

3- WWW. CDC and WHO

sites

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1. Adequate infrastructure including:
2. Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
3. Teaching tools including: screens ,computers, data show, video players digital, white boards, color and laser printers

Course Coordinator: Dr/ Foad Metry Atya

Head of Department: Prof/ Ahmed Fathy Hammed

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specifications of Primary Medical Reports in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given MD degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Forensic Medicine and Clinical Toxicology
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of Primary Medical Reports in MD degree in Ophthalmology

Code: FOR0522-300

Title	Lecture	Practical	Total	Credit
Primary Medical Report	15	30	45	2

B- Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to:

- Have the professional knowledge about primary medical reports of eye diseases
- Provision of sound ethical principles related to ophthalmology.

2. Intended Learning Outcomes of Course (ILOs):

a) **Knowledge and understanding**

By the end of the course, the student is expected to be able to:

- a1. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology

b) **Intellectual skills:**

By the end of the course, the student is expected to be able to:

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for ophthalmologic diseases..

c) **Professional and practical skills:**

By the end of the course, the student is expected to be able to:

- c1. Write and evaluate medical reports.

d) **General and Transferable skills:**

By the end of the course, the student is expected to be able to:

- d1. Use of different sources for information and knowledge.

3. Contents

Topic	No. of hours	Lecture	Practical
The pathology of wounds, chest and abdominal injuries, self inflicted injury	٦	2	4
The systemic effect of trauma& Permanent infirmity	٣	1	٢
Head and spinal injuries	6	2	4
The medicolegal aspects of firearm injuries	3	1	٢
Burn and scold	3	١	٢
How to write a medicolegal report& How to write death certificate	3	١	٢
The medicolegal aspect of deaths associated with surgical procedures and toxicological sampling	٦	٢	٤
Obligation of physicians (towards patients, colleagues, community)	3	١	٢
Consent, and professional secrecy	3	١	٢
Types of malpractice, and items of medical responsibility	3	١	٢
Medicolegal aspects of organ transplantation, intersex states, euthanasia, assisted reproduction techniques	3	١	٢
ethical considerations of medical research involving human subjects	3	١	٢
Total hours	45	15	٣٠
Credit	٢	١	١

4. Teaching and Learning Methods

4.1-Lectures.

4.3- Assignments

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills

5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Intellectual skills, Knowledge, General transferable skills
5.4Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

- 1- Assessment 1: written examination week 24
- 2- Assessment 2: Structured Oral Exam week 24
- 3- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessment: simple research assignment, attendance and absenteeism.

6. List of References

Essential books

Simpson's Forensic Medicine, 13th Edition, by Jason Payne-James, Richard Jones, Steven B Karch, John Manlove. published by Hodder & Stoughton Ltd (2011).

Goldfrank's Toxicologic Emergencies, (9th ed.) by Lewis S. Nelson, Robert S. Hoffman, Mary Ann Howland, Neal A Lewin, Lewis R. Goldfrank, Neal E. Flomenbaum. Published by McGraw-Hill (2011)

Emergency Toxicology, Peter Viccellio, (2nd ed.) Published by Lippincott Williams & Wilkins (1998)

Recommended books

Medical ethics. (1997) Robert M Veatch. 2nd edition. Jones & Bartlett publishers

Periodicals and websites.....etc.

Egyptian journals of forensic medicine and clinical toxicology

International journals of forensic medicine and clinical toxicology

www.sciencedirect.com

<https://emedicine.medscape.com>

<https://www.ncbi.nlm.nih.gov/pmc/>

7. Facilities Required for Teaching and Learning

1. Adequate infrastructure including:
2. Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
3. Teaching tools including: screens, computers, data show, video players digital, white boards, color and laser printers.

Course Coordinator: Dr . Soheir Ali Mohammed .

Head of Department: Dr. Soheir Ali Mohammed

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of Human Anatomy & Embryology in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given given: MD degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Human Anatomy & Embryology
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of Human Anatomy & Embryology in MD degree in Ophthalmology

Code: ANA0522-300

Title	Lecture	Practical	Total	Credit
Anatomy & Embryology	15	-----	15	1

B. Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge about the anatomy and embryology of the orbit and eyeball.

2. Intended Learning Outcomes of Course (ILOs):

a) **Knowledge and understanding**

By the end of the course, the student is expected to be able to:

- a1. Mention the recent advances in the normal structure and of the human eye on the macro and micro levels.
- a2. Enumerate recent advances in the normal growth and development of the human eye.

b) **Intellectual skills:**

By the end of the course, the student is expected to be able to:

- b1. Plan to improve performance in the field of ophthalmology

c) **Professional and practical skills:**

By the end of the course, the student is expected to be able to:

- c1. Master the basic and modern professional anatomical skills to help in clinical and surgical skills in the area of ophthalmology

d) **General and Transferable skills:**

By the end of the course, the student is expected to be able to:

- d1. Use of different sources for information and knowledge

3. Contents

Topic	No. of hours	Lecture	practical
Introduction	1	1	
Anatomy of the orbit	2	2	
Anatomy and embryology of the eyeball	4	4	
Blood supply of the eye	2	2	
Anatomy and embryology of the lacrimal system	2	2	
Anatomy and embryology of the conjunctiva	2	2	
Revision	2	2	
Total	15	15	
Credit	1	1	

4. Teaching and Learning Methods

- 4.1- Lectures.
- 4.2- practical lessons.
- 4.3- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Intellectual skills, Knowledge, General transferable skills

Assessment Schedule

- 1- Assessment 1: written examination week 24
- 2- Assessment 2: Structured Oral Exam week 24
- 3- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

6. List of References

6.1- Essential Books (Text Books)

- Fitzgerald M.J.T. (2016): The anatomical basis of medicine and surgery. By Standing s., ELIS H., Healy J. C., Johnson D. and Williams A. Gray's Anatomy. Elsevier; London, New York. Sydney. Toronto.

6.2- Recommended Books

- Stevens A. and Lowe J. S. (2015): Human histology; 5th edition; edited by Elsevier Mosby
- Colored Atlas of anatomy.

- Martini F. H., Timmons M. J. and McKinley M.P. (2015): Human anatomy; 10 edition.
- Tortora G. J. and Nielson M.T. (2016): Principles of human anatomy 14 edition; Edited by John Wiley and Sons ; United states.
- McMinn R.M.H. (2017): Lasts anatomy regional and applied chapter 7; 14 edition, edited by Longman group UK.

6.3 Periodicals:

British journal of anatomy

Web Sites: [www. Innerbody.com](http://www.Innerbody.com)

7. Facilities Required for Teaching and Learning

- Adequate infrastructure including:
 - Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
- Teaching tools including: screens ,computers, data show, video players digital, white boards, color and laser printers

Course Coordinator: Dr. Mohamed Al-Badry

Head of Department: Dr. Mohamed Al- Badry

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of Optics in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program (s) on which the course is given: MD degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Ophthalmology department
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of Optics in MD degree in Ophthalmology

Code: OPH0522-300

Title	Lecture	practical	Total	Credit
Optics	30	--	30	2

B. Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge about the optics and refraction of the eye.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding

By the end of the course, the student is expected to be able to:

- a1. Mention the optics of the eye
- a2. Enumerate recent advances in the common diagnostic techniques necessary to establish diagnosis of ophthalmologic illnesses and errors of refraction.
- a3. Describe recent advances in the various therapeutic methods/alternatives used for refractive diseases

b) Intellectual skills:

By the end of the course, the student is expected to be able to:

- b1. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for ophthalmologic problems.
- b2. Plan to improve performance in the field of ophthalmology
- b3. Identify ophthalmologic problems and find solutions.
- b4. Have the ability to innovate nontraditional solutions to ophthalmologic problems.

c) Professional and practical skills:

By the end of the course, the student is expected to be able to:

- c1. Evaluate and develop methods and tools existing in the area of ophthalmology
- c2. Design new methods, tools and ways of professional practice.

d) General and Transferable skills:

By the end of the course, the student is expected to be able to:
d1. Use of different sources for information and knowledge

3. Contents

Topic	No. of hours	Lecture	practical
Properties of light	1	1	
Reflection of light	1	1	
Refraction of light	1	1	
Prisms	1	1	
Refraction by lenses	1	1	
Refraction of the eye	1	1	
Aberrations	۲	۲	
Ametropia	۲	۲	
Accommodation	۲	۲	
Binocular muscular coordination	۲	۲	
Retinoscopy	۲	۲	
Ophthalmoscopy	۲	۲	
Verification of refraction	1	1	
Spectacles	۲	۲	
Contact lenses	۲	۲	
Intraocular lenses	۲	۲	
Low vision aids	1	1	
Ophthalmoptic instruments	4	4	
Total	30	30	

4. Teaching and Learning Methods

4.1-Lectures.

4.2- simple research assignment.

5. Student Assessment Methods:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Intellectual skills, Knowledge, General transferable skills
5.4Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

- 1- Assessment 1: written examination week 24
- 2- Assessment 2: Structured Oral Exam week 24
- 3- Assessment of attendance & absenteeism- simple research assignment throughout the course

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessment: attendance and absenteeism.

6. List of References

6.1 Course notes:

Lecture notes prepared by the staff members of the department

6.2- Essential Books (Text Books)

Alrefaay clinical optics of the eye

6.3- Recommended Books

Clinical optics 3rd edition Andrew R. Elkington

6.4: Periodicals, and Web Sites:

American journal of optics and refraction

7. Facilities Required for Teaching and Learning

1. Adequate infrastructure including:
 - a. Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
2. Teaching tools including: screens ,computers, data show, video players digital, white boards, color and laser printers

Course Coordinator: Prof. Marwa Mahmoud Abdella

Head of Department: Prof. Hatem Gamal Ammar

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of Pathology in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

- 1- Program on which the course is given: MD degree in ophthalmology
- 2- Major or minor element of program: minor
- 3- Department offering the program: Ophthalmology department
- 4- Department offering the course: Pathology department
- 5- Academic year / Level: 1st part.
- 6- Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of Pathology in MD degree in Ophthalmology

Code:PAT0522-300

Title	Lecture	Practical	Total	Credit
Pathology	30	--	30	2

B. Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge about the Pathology of the orbit and eyeball.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a1. List the recent advances in the abnormal structure, function, growth and development of human eye
- a2. Enumerate the fate and complications and prognosis of different diseases of the eye.

b) Intellectual skills:

By the end of the course, the student is expected to be able to:

- b1. Interpret data through macroscopic and microscopic criteria of the altered structure (pathology) of the eye that are seen in various diseases.
- b2. Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, and degenerative) and mechanisms of diseases of the eye and the way through which they operate (pathogenesis)
- b3. Plan to improve performance in the field of ophthalmology

c) Professional and practical skills:

By the end of the course, the student is expected to be able to:

- c1. Identify the macroscopic and microscopic criteria of the altered structure (pathology) of the eye that are seen in various diseases.
- c2. Write and evaluate professional manner a pathology report.
- c3. Train junior staff through continuous medical education programs.

d) General and Transferable skills:

By the end of the course, the student is expected to be able to:

- d1. Teach others and evaluate their performance.
- d2. Use of different sources for information and knowledge.

3. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
I- General Pathology: Inflammation, repair, cell response to injury, hypersensitivity reactions, infectious diseases, cellular growth disorders & tumors.	2	2	
II- Specific Pathology	28	28	
1- Pathology of Eyelid diseases	2	2	
2- Pathology of Conjunctival diseases	2	2	
3- Pathology of Corneal diseases	2	2	
4- Pathology of Scleral diseases	2	2	
5- Pathology of Uveal Tract diseases	2	2	
6- Pathology of Lens diseases	2	2	
7- Pathology of Glaucoma	2	2	
8- Pathology of Vitreous diseases	2	2	
9- Pathology of Retinal (Neuro-sensory retinal) diseases	2	2	
10- Pathology of Optic nerve diseases	2	2	
11- Pathology of Orbit diseases	2	2	
12- Pathology of Lacrimal Apparatus diseases	2	2	
13- Pathology of Intraocular Tumors	2	2	
14- Ocular Melanotic Tumors	2	2	
TOTAL	30	30	

4. Teaching and Learning Methods

4.1. Lectures.

4.2- simple research assignment.

5. Student Assessment Methods:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Intellectual skills, Knowledge, General transferable skills
5.4Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

- 1- Assessment 1: written examination week 24
- 2- Assessment 2: Structured Oral Exam week 24
- 3- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessment: simple research assignment, attendance and absenteeism.

6. List of References

6.1- Essential Books (Text Books):

- Muir's text book of pathology, 15th edition, 2014
- Robbins pathologic basis of diseases, 10th edition, 2017

6.2- Recommended Books:

- Rosi & Ackerman text book of pathology, 11th edition, 2017
- Sternberg text book of pathology, 6th edition, 2015

6.3- Periodicals, websites:

American journal of pathology

Pathology journal

Human pathology journal

Web Sites: <http://www.ncbi.nlm.nih.gov/pubmed/>

7. Facilities Required for Teaching and Learning:

A. Adequate infrastructure including:

Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools

B. Teaching tools including: screens, computers, data show, video players digital, white boards, colour and laser printers

Course Coordinator: Dr. Eman Mohamed Salah

Head of Department: Dr. Afaf Taha Alnashar

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specifications of Medical Physiology in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: MD degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Medical Physiology department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Physiology Course Specifications of Medical Physiology in MD degree in Ophthalmology

Code: PHY0522-300

Title	Lecture	Practical	Total	Credit
Medical Physiology	30	--	30	2

B. Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge about physiology of the eye and visual pathway.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding

By the end of the course, the student is expected to be able to:

- a1. Mention the recent advances in the function of the human eye

b) Intellectual skills:

By the end of the course, the student is expected to be able to:

- b1. Plan to improve performance in the field of ophthalmology

c) Professional and practical skills:

By the end of the course, the student is expected to be able to:

- c1. Master the basic and modern professional clinical and surgical skills in the area of ophthalmology

d) General and Transferable skills:

By the end of the course, the student is expected to be able to:

- d1. Use of different sources for information and knowledge.

3. Contents

Topic	No. of hours	Lecture	practical
aqueous humor & intraocular pressure	۲	۲	
protective mechanisms of the eye	۲	۲	
-accommodation of the eye	2	2	
Normal & abnormal refraction of the eye	2	2	
-pupillary reflexes	2	2	
photoreceptors & mechanism of its excitation	۴	۴	
light & dark adaptation.	2	2	
color vision	2	2	
visual pathway & field of vision	4	4	
visual acuity & factors affecting it.	2	2	
- binocular vision and its advantages & requirements	2	2	
eye movement & its higher control.	۲	۲	
Total	30	30	

4. Teaching and Learning Methods

4.1- Lectures.

4.2- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
5.3-Structured Oral Exam	- Intellectual skills, Knowledge, General transferable skills

Assessment Schedule

- 1- Assessment 1: written examination week 24
- 2- Assessment 2: Structured Oral Exam week 24
- 3- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessment: simple research assignment, attendance and absenteeism.

6. List of References

6.1 Course notes:

Lecture notes prepared by the staff members of the department

6.2- Essential Books (Text Books Gyton textbook of physiology

6.3- Recommended Books

Retchard textbook of physiology

Ganong textbook of physiology

6.4: Periodicals, and Web Sites:

American journal of physiology

7. Facilities Required for Teaching and Learning:

1. Adequate infrastructure including:
 - a. Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
2. Teaching tools including: screens ,computers, data show, video players digital, white boards, color and laser printers

Course Coordinator: Dr . Ahmed Mostafa

Head of Department: Dr. Hoda Mostafa

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of Medical & Surgical Ophthalmology in MD degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: MD degree in ophthalmology
2. Major or minor element of program: major
3. Department offering the program: Ophthalmology department
4. Department offering the course: Ophthalmology department
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of medical ophthalmology in MD degree in Ophthalmology

Code:OPH0522-300

Title	Lecture	Clinical	Surgical	Total
Medical ophthalmology	٢٧٠	270		540
Surgical ophthalmology	210		٣٣٠	540

B. Professional Information

1. Overall Aims of Course

The aim of this program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary for providing further training and practice in the field of ophthalmology including: through providing::

1. Recent Scientific knowledge essential for the mastery of practice of ophthalmology according to the international standards.
2. Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving and decision making skills in the field of ophthalmology.
3. Active participation in community needs assessment and problems identification.
4. 5-Maintenance of learning abilities necessary for continuous medical education.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and Understanding:

By the end of the course, the student is expected to be able to:

- a1. Enumerate recent advances in the natural history of ophthalmologic diseases.
- a2. Enumerate recent advances in the causation of ophthalmologic diseases..
- a3. a.3 Enumerate Methods of eye health and preventing its illness

- a4. List the clinical picture and differential diagnosis of ophthalmologic illnesses.
- a5. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses..
- a6. Describe recent advances in the various therapeutic methods/alternatives used for ophthalmologic diseases
- a7. Enumerate the principles and fundamentals of quality assurance of professional practice in the field of ophthalmology
- a8. Describe the effect of professional practice on the environment and the methods of environmental development and maintenance.

b) Intellectual skills:

By the end of the course, the student is expected to be able to:

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for ophthalmologic diseases..
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for ophthalmologic problems.
- b3. Assess risk in professional practices in the field of ophthalmology
- b4. Plan to improve performance in the field of ophthalmology
- b5. Identify ophthalmologic problems and find solutions.
- b6. Have the ability to innovate nontraditional solutions to ophthalmologic problems.
- b7. Manage Scientific discussion based on scientific evidences and proofs.

c) Professional and practical skills:

By the end of the course, the student is expected to be able to:

- c1. Master the basic and modern professional clinical skills in the area of ophthalmology
- c2. Evaluate and develop methods and tools existing in the area of ophthalmology
- c3. Train junior staff through continuous medical education programs.
- c4. Design new methods, tools and ways of professional practice.

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d1. Present reports in seminars effectively
- d2. Teach others and evaluate their performance.
- d3. Assess himself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Work coherently and successfully as a part of a team and team's leadership.
- d6. Manage scientific meetings according to the available time.

3. Contents

Medical Ophthalmology Module:

Topics	Total no of hours	Lectures	clinical
Introduction, Ocular Symptoms and Signs	30	15	15
-eye lids	30	15	15
cornea	4	20	20
-conjunctiva	40	20	20
-lacrimal apparatus	40	20	20
glaucoma	80	40	40
Vitreous	30	15	15
uveitis	40	20	20
<u>Retina</u>	40	20	20
Optic nerve	30	15	15
Strabismus	40	20	20
Orbit	30	15	15
Ocular trauma	30	15	15
Systemic diseases and the eye	40	20	20
Total	540	270	270
Credit	27	18	9

Surgical ophthalmology module:

Topics	Total No. of hours	Lectures	Surgical
General principles of ocular surgery	20	8	12
Sterilization and disinfection	20	8	12
Ocular anaesthesia	36	12	24
Surgical diseases of eye lids	36	12	24
Surgical diseases of the cornea	36	12	24
Surgical diseases of the conjunctiva	36	12	24
Surgical disease of the lacrimal system	45	15	30
Surgical diseases of the lens, cataract	45	20	25
Surgical management of glaucoma	44	20	24
Surgical diseases of the Retina	44	20	24
Refractive surgery Principles ,types ,applications	44	20	24
Strabismus Esotropia, exotropia, clinical evaluation, management	44	20	24
Surgical diseases of the Orbit	39	15	24
Surgical management of ocular trauma	46	16	30
Total	540	210	330
Credit	25	14	11

4. Teaching and Learning Methods

- 4.1-Lectures
- 4.2-clinical lessons
- 4.3- Assignments for the students to empower and assess the general and transferable skills
- 4.4 Attendance workshops, conferences and thesis discussion
- 4.5 Attendance in the outpatient clinic and inpatient department

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Log book	- General transferable skills
5.3-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.4-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.5-OSCE	-Practical skills, intellectual skills General transferable skills
5.6 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1 log book (formative only)	Week: 80
Assessment 2 Final clinical exam....	Week: 96
Assessment 3Final written exam	Week: 96
Assessment 4 ... Final oral exam	Week: 96

Weighting of Assessments

Final Written Examination.	Separate exam.
Passing in the written exam is a condition to attend the following exams:	
Oral Examination.	50 %
Clinical Examination	50 %

Total	100%
Final- written Examination	50%
Structured Oral Examination	30%
OSCE	20%
Total	100%

Formative only assessment :simple research Assignments, log book, attendance and absenteeism

6. List of References

6.1- Course Notes

Lecture notes prepared by staff members in the department

6.2- Essential Books (Text Books)

- Kanski: text book of ophthalmology
- Yanoff text book of ophthalmology

6.3- Recommended Books:

- Duane's clinical ophthalmology

- Comprehensive ophthalmology

6.4- periodicals and websites:

- British Journal of ophthalmology
- American journal of ophthalmology

7. Facilities Required for Teaching and Learning

1. Adequate infrastructure including:
 - a. Teaching classes, teaching halls, teaching laboratory, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
2. Teaching tools including: screens ,computers, data show, video players digital, white boards, colour and laser printers

Course Coordinator: Dr. marwa Mahoud Abd- Elllah

Head of Department: Prof/Hatem Gamal Amar

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018