

Peer Revision

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

Program Specification on Master degree of Ophthalmology

Sohag University

Faculty of medicine

A. Basic Information

1. Program title: Master degree in ophthalmology
2. Program type: single
3. Department: Ophthalmology Department
4. Coordinator: Dr. Hatem Gamal Ammar
5. Assistant coordinator: Dr. Mohammed Ezz Eldawla
6. External evaluator: Prof. Ezz Eldeen Galal
7. 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 medical knowledge and skills essential for the practice of specialty and necessary for gaining further training and practice in the field of ophthalmology including: through providing:

- 1- Scientific knowledge essential for the 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- Maintenance of learning abilities necessary for continuous medical education.
- 6- Maintenance research interest and abilities.

2. Attributes of the doctorate degree graduates:

1. Efficient in carrying out the basics and advances in 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.
5. Showing a deep awareness with the ongoing problems, theories, and advanced sciences in his specialty.



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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 master program in ophthalmology the Graduate should be able to:

- a1. Mention the normal structure and function of the human eye on the macro and micro levels.
- a2. Enumerate the normal growth and development of the human eye.
- a3. List the abnormal structure, function, growth and development of human eye
- a4. Describe the optics of the eye
- a5. Enumerate the relation between surgical diseases and the eye
- a6. Enumerate the relation between medical diseases and the
- a7. Enumerate the relation between neurological diseases and the eye
- a8. Enumerate the natural history of ophthalmologic diseases.
- a9. Enumerate the causation of ophthalmologic diseases.
- a10. Enumerate Methods of eye health and preventing its illness.
- a11. List the clinical picture and differential diagnosis of ophthalmologic illnesses.
- a12. Enumerate concepts in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses.
- a13. Describe concepts in the various therapeutic methods/alternatives used for ophthalmologic diseases
- a14. Enumerate the scientific development in the field of ophthalmology.
- a15. Enumerate the mutual influence between professional practice and its impacts on the environment.
- a16. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology.
- a17. Mention the principles and fundamentals of quality of professional practice in the field of ophthalmology
- a18. Describe the principles, basics and ethics of scientific research

b) Intellectual skills

By the end of the study of master 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 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 ophthalmological problems and find solutions.
- b8. Analyze reading of research and issues related to the ophthalmology

c) Professional and practical skills

By the end of the study of master 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.

d) General and transferable skills

By the end of the study of master 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 cession 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 cession No. 191, dated 15/3/2010. The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its cession No.60. Dated 26-12-2011

5. Curriculum Structure and Contents

5.a- Program duration: 6 semesters (3 years)

5.b- Program structure :

Subject	hours /week		
	Lectures	Practical/surgical	Clinical

<u>First Part:</u>			
Anatomy of the eye	1	----	----
Physiology of the eye	1	----	----
Pathology	3	2	----
Optics	2	1	----
General surgery	1	2	1.5
Internal medicine	1	0.5	
Neurology		0.5	1.5
Biostatistics ,computer and research methodology	1	2	
<u>Second Part:</u>			
Medical ophthalmology	4	----	4
Surgical ophthalmology	4	4	----

code	Item	No	%	
b.i	Total credit hours	Compulsory	50	100
		Elective	0	0
		Optional	0	0
b.iii	credit hours of basic sciences courses	7	14	
b.iv	credit hours of courses of social sciences and humanities	0	0	
b.v	credit hours of specialized courses:	32	64	
b.vi	credit hours of other course	--	--	
b.vii	Practical/Field Training	0	0	
b.viii	Program Levels (in credit-hours system):			
	Level 1: 1 st part	10	20	
	Level 2: 2 nd Part	24	48	
	Level 3: Thesis	6	12	

6. Program courses 9 courses

6.1- Level of the program

Semester...1.....

First part

a. Compulsory

Course Title	Total No of hours	No. of hours/weeks			Program ILOs covered (by No.)
		Lect.	Lab.	clinical	
Anatomy of the eye	1	1	---	---	a1,a2,b3,b6,c1,d4,d8
physiology of the eye	1	1	---	---	a1,b3,c3,d4,d8

Pathology of the eye	5	3	2	----	a3,a8,a9,b1,b3,b6,c1,c2,d2,d4,d8
optics of the eye	3	2	1		a4,a9,a13,a14,b3,b6,,c1,c3,d2,d5,d8
General surgery	4	2	---	2	a5,b1,b3,b6,c1,d4,d8
Internal Medicine	1.5	1	----	0.5	a6,b1,b2,b3,b6,c1,c3,d4,d8
Neurology	1.5	1	----	0.5	a7,b1,b3,b6,c1,d4,d8
Biostatistics and computer and research methodology	2	١	٢		a8,b1,b4,b5,b7,c1,c3,d1,d2, d3,d4, d6,d7,d8

Second Part

a. Compulsory

Course Title	Total No. of hours	No. of hours/weeks			Program ILOs covered (by No.)
		Lect	Lab.	clinical.	
Medical ophthalmology	8	4	---	4	a8,a9,a10,a11,a12,a13,a14,a15,a16,a17,a18,b1,b2,b3,b4,b5,b6,b7,b8,c1,c2,c3,d1,d2,d3,d4,d5,d6,d7,d8
Surgical ophthalmology	8	4	4	---	a1,A8,a9,a10,a11, ,a13,a15,a16,a17,a18,b1,b2,b3,b4,b5,b6,b7,b8,c1,c2,c3,d1,d2,d3,d4,d5,d6,d7,d8

7. Program Admission Requirements

I- General Requirements.

1. Candidate should have either:
 - i. MBBCh degree from any Egyptian Faculty of Medicine or
 - ii. Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
2. Candidate should pass the house office training year.
3. Those who are not university hospital residents should pass a training for at least 12 months in one of the known hospitals.
4. Follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (44), dated 6/1/2010.

II- Specific Requirements.

1. Candidates graduated from Egyptian Universities should have at least "Good Rank" in their final year/ cumulative years examination, and grade "Good Rank" in ophthalmology course too.
2. Candidate should know how to speak & write English well
3. Candidate should have computer skills

8. Regulations for Progression and Program Completion

Duration of program is 50 credit hours (≥ 4 semesters ≥ 3 years), starting from registration till 2nd part exam; divided to:

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

- Program-related basic & clinical sciences & 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.
- At least 50% of the written exam 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 for the next time only, and if re-fail, should register for the course from the start.

Thesis/Essay(6 Credit hours \geq 6 months=1 semester):

- Completion of the 1st part credit hours and passing the exams are pre requisites for documentation of the **Thesis/Essay** subject.
1. Should be completed, defended and accepted after passing the 1st part examination, and at least one month before allowing to enter 2nd part final examination.
 2. Accepting the thesis is enough to pass this part.

Second Part: (24 Credit hours \geq 18 months= 3 semesters):

- Program related specialized science of ophthalmology courses.
- Completion of the 1st part credit hours and passing the exams are pre requisites for documentation of the 2nd part courses.
- After passing at least:
 - University hospital residents: 36 months residency in the department of Obstetrics & Gynecology.
 - Residents in other places: Completed 36 months residency; 12 months of them training in the department of ophthalmology.
- The students should pass the 1st part before asking for examination in the 2nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (5 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= 5 Cr. Hr. X 60 working Hrs = 300 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 50% of the written exam is needed to pass in each course.
- For the student to pass the 2nd part exam, a score of at least 60% (Level D) in each course is needed.

9. Methods of student assessments:

Method of assessment	weight	The assessed ILOs
1-Activities		- 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:

- Anatomy of the eye: Written Exam (2 hours) + Structured oral Exam
- Optics of the eye: Written Exam (2 hours) + structured oral Exam
- Physiology of the eye: Written Exam (2 hours) + Structured oral Exam
- General surgery: Written Exam (2 hours) + OSCE + Structured oral Exam
- Internal medicine and neurology : Written Exam (2 hours) + OSCE + Structured oral Exam
- Pathology of the eye: Written Exam (2 hours) + OSPE + Structured oral Exam
- Biostatistics & Computer and Research Methodology: Written Exam (2 hours) + Structured oral Exam+ OSPE

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 Human Anatomy & Embryology in Master degree in Ophthalmology

University of Sohag

Faculty of Medicine

1. Program on which the course is given: master 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 Master degree in Ophthalmology

Code: ANA0522-200

Total Hours:

Lecture	Practical	Tutorial	Total
15			15

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 study of master program in ophthalmology the Graduate should be able to:

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

b) Intellectual skills

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

- b1. Link between knowledge for Professional problems' solving

c) Professional and practical skills

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

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

d) General and transferable skills

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

- d1. Use of different sources to obtain information and knowledge
- d2. Learn himself continuously

3. Contents

Topic	No. of hours	Lecture	Practical
Introduction	1	1	
Anatomy of the orbit	2	2	
Anatomy and embryology of the eyeball	3	3	
Blood supply of the eye	3	3	
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- 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	- Knowledge, Intellectual skills, General transferable skills
5.4 assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1 Final written exam.... Week ...24.....

Assessment 2Final oral exam..... week....24

Weighting of Assessments

Final- written Examination	50%
Structured Oral Examination	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, colour 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 master degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: master 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 Master degree in Ophthalmology

Code: OPH0522-200

Credit Hours:

Lecture	Practical	Tutorial	Total	Credit
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 the optics and refraction of the eye.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding

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

- a1. Enumerate the optics of the eye
- a2. Enumerate the causation of refractive diseases.
- a3. Describe concepts in the various therapeutic methods/alternatives used for refractive diseases
- a4. Describe the scientific development in the field of optics and refraction.

b) Intellectual skills

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

- b1. Link between knowledge for Professional problems' solving
- b2. Plan to improve performance in the field of ophthalmology

c) Professional and practical skills

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

- c1. Master of the basic and modern professional clinical skills in the area of optics and refraction.
 c2. Assess methods and tools existing in the area of ophthalmology.

d) General and transferable skills

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

- d1. Use information technology to serve the development of professional practice.
 d2. Use of different sources for information and knowledge.
 d3. Learn himself continuously

3. Contents

Topic	No. of hours	Lecture	practical
Properties of light	1.5	0.5	1
Reflection of light	1.5	0.5	1
Refraction of light	1.5	0.5	1
Prisms	2	1	1
Refraction by lenses	2	1	1
Refraction of the eye	1.5	0.5	1
Aberrations	1.5	0.5	1
Ametropia	1.5	0.5	1
Accommodation	2	1	1
Binocular muscular coordination	3	1	2
Retinoscopy	3	1	2
Ophthalmoscopy	3	1	2
Verification of refraction	3	1	2
Spectacles	3	1	2
Contact lenses	3	1	2
Intraocular lenses	3	1	2
Low vision aids	3	1	2
Ophthalmoptic instruments	6	1	5
Total	45	15	30
Credit	2	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	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment Final written exam.... Week 24
AssessmentFinal oral exam..... week....24

Weighting of Assessments

Final- written Examination	50%
Structured Oral Examination	50%
Total	100%

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

- 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, colour and laser printers

Course Coordinator: Dr.Mohammed Ezz Eldawla

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 Medical Physiology course of Master degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: master 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: Course Specifications of Medical Physiology in Master degree in Ophthalmology

Total hours:

Lecture	Practical	Tutorial	Total	Credit
30			30	2

B. Professional information

1. Aim of the course:

to prepare an ophthalmology physician oriented with the physiology of the eye & vision. In addition, graduates should have enough knowledge about the changes of aqueous humor & intraocular pressure. They should have adequate information about binocular vision and its advantages in addition to the visual pathway & field of vision.

2. Intended learning outcomes (ILOs):

a) Knowledge and understanding

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

- a1. Mention the function and mechanisms of protection to the eye
- a2. Enumerate the changes of aqueous humor & intraocular pressure.
- a3. Enumerate the physiology of binocular vision and its advantages in addition to the visual pathway & field of vision.

b) Intellectual skills

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

- b1. Link between knowledge for Professional problems' solving

c) Professional and practical skills

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

- c1. Assess methods and tools existing in the area of ophthalmology.

d) General and transferable skills

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

- d1. Use of different sources to obtain information and knowledge
- d2. Learn himself continuously

3. Contents of the course:

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

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	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment Final written exam.... Week ...24.....

Assessment....Final oral exam..... Week....24

Weighting of Assessments

Final- written Examination	50%
Structured Oral Examination	50%
Total	100%

6. List of References

6.1 Course notes:

Lecture notes prepared by the staff members of the department
Guyton and Hall Textbook of Medical Physiology, John E. Hall, 13th edition,
Elsevier Health Sciences, 2015.

6.2- Recommended Books

Ganong's Review of Medical Physiology, 25th Edition, McGraw Hill Professional,
2015.

6.4: Periodicals, and Web Sites:

American journal of physiology

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. 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 Specification of Pathology in Master degree in ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: Master degree in ophthalmology
2. Major or minor element of program: Major
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 for master degree in Ophthalmology

Code: PAT0522-200

Total hours :

Lectures	Practical	Tutorial	Total hour
15	30	-	45

B. Professional Information

1. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the pathology of eye diseases.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should have the ability to

- a1. List the abnormal structure, function, growth and development of human eye
- a2. Enumerate the fate and complications and prognosis of different diseases of the eye
- a3. Enumerate the causation of ophthalmologic diseases.

b) Intellectual Skills:

By the end of the course the student should have the ability to:

- b1. Correlate gross and histopathology with the clinical basis of diseases of the eye.
- b2. Link between knowledge for Professional problems' solving.

c) Professional and Practical Skills:

By the end of the course the student should have the ability to:

- c1. Identify the macroscopic and microscopic criteria of the altered structure (pathology) of the eye that are seen in various diseases.
- c2. Evaluate in a professional manner a pathology report

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d1. Use information technology to serve the development of professional practice.
- D.2 Use of different sources to obtain information and knowledge
- d2. Learn himself continuously

3. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
I- General Pathology:	9	3	6
1.1. Inflammation.	1.5	0.5	1
1.2. Repair & wound healing	1.5	0.5	1
1.3. Cell response to injury and aging.	1.5	0.5	1
1.4. Immunity and hypersensitivity.	1.5	0.5	1
1.5. Infectious diseases.	1.5	0.5	1
1.6. Disturbances of cellular growth	1.5	0.5	1
II- Diseases of the Eye:			
2.1. Eyelid:	16.5	5.5	11
2.1. Congenital & developmental lesions	1	0.5	0.5
2.2. Senile (Aging) changes; Atrophy, Senile entropion, Senile ectropion, Dermatochalasis, Herniation of orbital fat	1	0.5	0.5
2.3. Inflammation of the eyelid	1	0.5	0.5
2.4. Tumors and tumors like conditions:	1	0.5	0.5
2.4.a. Cysts of the eyelid.	1	0.5	0.5
2.4.b. Benign lesions of the surface epithelium.	1	0.5	0.5
2.4.c. Premalignant lesions of the surface epithelium	1	0.5	0.5
2.4.d. Malignant tumors of the surface epithelium	1.5	0.5	1
2.4.e. Tumors of the epidermal appendages	1.5	0.5	1
2.4.f. Pigmented lid lesions.	1.5	0.5	1
2.4.g. Metastatic tumors of the eyelids	1.5	0.5	1
3- Conjunctiva:	4.5	1.5	3
3.1. Inflammations	1.5	0.5	1
3.2. Congenital lesions.	1.5	0.5	1
3.3. Tumors of the conjunctiva	1.5	0.5	1
1- Cornea:	6	2	4
4.1. Inflammations	1.5	0.5	1
4.2. Congenital lesions	1.5	0.5	1
4.3. Degenerations	1.5	0.5	1
4.4. Tumors.	1.5	0.5	1
5- Sclera:	3.5	2	1.5
5.1. Inflammations	1	0.5	0.5
5.2. Congenital lesions	1	0.5	0.5
5.3. Ectasia & staphyloma	1.5	1	0.5
6-Uveal Tract:	4	2	2
6.1. Inflammations	2	1	1
6.2. Tumors	2	1	1
7- Lens:	3	1	2

7.1. Congenital lesions	1.5	0.5	1
7.2. Cataract	1.5	0.5	1
8- Glaucoma:	2	1	1
9-Vitreous:	2	1	1
10- Retina (Neuro-sensory retina):	2	1	1
11- Optic nerve.	2	1	1
12- Orbit.	2	1	1
13- Lacrimal Apparatus.	2	1	1
14- Intraocular Tumors.	2	1	1
15- Ocular Melanotic Tumors.	2	1	1
TOTAL	45	15	30
Credit	2	1	1

4. Learning Methods

- 4.1- Illustrated lectures
- 4.2- Clinical rounds on patients.
- 4.3- Attendance in outpatients' clinic.
- 4.4- Case studies in department conference.
- 4.5- Assignments for the students to empower and assess the general and transferable skills
- 4.6 Attendance workshops, conferences and thesis discussion

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 assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment Final written exam....	Week: 94
Assessment ...Final OSCE ...	Week: 96
AssessmentFinal Structured Oral Exam	Week

Weighting of Assessments

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- 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

- 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, colour and laser printers

Course Coordinator: Dr. Fatma El Zaharaa

Head of Department: Prof. Afaf Al-Nashar

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

Course Specifications of General Surgery in master degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: master degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: General Surgery 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 General Surgery in Master degree in Ophthalmology

Code: SUR0522-200

Credit Hours:

Lecture	Practical	Tutorial	Total	Credit
15	30		45	2

B. Professional Information

1. Overall Aims of Course

By the end of the course of **General Surgery**, the candidate should be able to:

- 1- Deal with common surgical conditions related to ophthalmological disorders on the basis of adequate history taking, physical examination interpretation of relevant supportive investigations and management.
- 2- Deal with acute surgical emergencies related to ophthalmological disorders.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding

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

- a1. Enumerate the relation between surgical diseases and the eye

b) Intellectual skills

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

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for Surgical diseases related to the eye diseases.
- b2. Link between knowledge for Professional problems' solving
- b3. Plan to improve performance in the field of ophthalmology
- b4. Plan to improve performance in the field of ophthalmology

c) Professional and practical skills

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

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

d) General and transferable skills

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

d1. Use of different sources to obtain information and knowledge

d2. Learn himself continuously

3. Contents

Topic	No. of hours	Lecture	clinical
Introduction	3	1	2
Shock	6	2	4
Blood transfusion	8	2	6
Wounds and wound infection	8	2	6
Jaundice	4	2	2
Thyroid and parathyroid diseases	4	2	2
Head trauma	4	2	2
Tumors of the skin	3	1	3
Parotid and submandibular glands	5	2	3
Total	45	15	30

4. Teaching and Learning Methods

4.1-Lectures.

4.2-surgical lessons.

4.3- attendance in the outpatient clinic

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	- Knowledge, Intellectual skills, General transferable skills
5.4-OSCE	-Practical skills, intellectual skills General transferable skills

Assessment Schedule

Assessment.... Final written exam.... Week ...24

Assessment ...Final OSCE ... Week: 22

AssessmentFinal Structured Oral Examination Week....24

Weighting of Assessments

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

6. List of References

6.1- Course Notes

Lecture notes prepared by the staff members of the department

6.2- Essential Books (Text Books)

Bailey's and loves text book of surgery

6.3- Recommended Books:

6.4 Periodicals & Web Sites:

American journal of General Surgery

7. Facilities Required for Teaching and Learning

- Adequate infrastructure including:
- Teaching classes, teaching halls, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools

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

Course Coordinator: Prof. Alaa Al Souty

Head of Department:Prof. Nabil Y Abo El Dahab

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

Course Specifications of Internal Medicine in Master degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: master degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Internal medicine 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 Internal Medicine in Master degree in Ophthalmology

Code: MED0522-200

Credit Hours:

Module	Lecture	Practical	Clinical	Total	Credit
Internal medicine	15		30	45	2

B. Professional Information

1. Overall Aims of Course

By the end of the course of Internal Medicine, the candidate should be able to:

- 1- Deal with common medical conditions related to ophthalmological disorders on the basis of adequate history taking, physical examination interpretation of relevant supportive investigations and management.
- 2- Deal with acute medical emergencies related to ophthalmological disorders.
- 3- Perceive and integrate progress in medical technology.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should have the ability to:

- a1. Enumerate the relation between medical diseases and the eye
- a2. Appreciate the clinical spectrum of common medical conditions related to ophthalmological diseases.
- a3. Describe the concept of emergency management of acute medical disorders related to ophthalmological disorders.

b) Intellectual Skills

By the end of the course the student should have the ability to:

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

- b2. Interpret the most important symptoms and signs of disease in Internal Medicine patients.
- b3. Interpret X-ray and CT films, blood gas and blood picture reports covering the most important medical conditions
- b4. Formulate appropriate management plans for individual patients presenting with the most common medical disorders related to various ophthalmological diseases

c) Professional and Practical Skills

By the end of the course the student should have the ability to:

- c1. Conduct a proper general examination and identify normal and major abnormal physical signs
- c2. Integrate the patient's symptomatology, historic data, abnormal physical signs and investigations into a comprehensive differential diagnosis.
- c3. Identify a clear priority plan in the patient's management
- c4. Get updated information about and demonstrations on modern diagnostic tools within the specialty

d) General and Transferable Skills

By the end of the course the student should have the ability to:

- d1. Use of different sources to obtain information and knowledge.
- d2. Learn himself continuously

3. Contents

Topics	No. of hours	Lecture	clinical
Cardiovascular Symptoms and signs	1.5	0.5	1
-Rheumatic fever &Infective endocarditis	2	1	1
-Systemic Hypertension	1.5	0.5	1
-Adult congenital heart diseases	2	1	1
<u>Heart failure</u>	3	1	2
Pulmonary embolism	1.5	0.5	1
Principles of endocrinology	1.5	0.5	1
Disorders of the anterior pituitary and the hypothalamus	1.5	0.5	1
Disorders of the thyroid gland	2	1	1
Hypothyroidism			
Hyperthyroidism			
Diabetes mellitus	3	1	2
1-Anemias	2	1	1
2-Bleeding disorders	2.5	0.5	2
3-Lymphadenopathy	2.5	0.5	2
4-Lymphomas	1.5	0.5	1
5-Acute and chronic leukemias	2	1	1
6-Spleenomegally	1.5	0.5	1
Major clinical syndromes in nephrology:.	1	0.5	1
Disturbed renal function:.	3	1	2
Drug induced renal disorders	2.5	0.5	2

Inflammatory bowel diseases	1.5	0.5	1
Salivary gland disorders	2.5	0.5	2
Jaundice	2.5	0.5	2
Total	45	15	30
Credit	2	1	1

4. Teaching and Learning Methods

- 4.1-Lectures.
- 4.2-clinical methods.
- 4.3- attendance in the outpatient clinic

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	- Knowledge, Intellectual skills, General transferable skills
5.4-OSCE	-Practical skills, intellectual skills General transferable skills

Assessment Schedule

Assessment Final written exam....	Week:24
Assessment ...Final OSCE ...	Week:22
AssessmentFinal Structured Oral Exam	Week:24

Weighting of Assessments

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

6. List of References

6.1- Course Notes

Lecture notes prepared by the staff members of the department

6.2- Essential Books (Text Books)

- Kumar and Clarke Textbook of Medicine; Parveen Kumar and Richard Clark; Blackwell Science; 9th edition, 2018
- Hutchison's Clinical Methods; Robert Hutchison; Harry Rainy; 24st edition;2018

6.3- Recommended Books

- Goldman-Cecil Textbook of Medicine;25th edition, 2018.
- Harrison's principles of internal medicine,20th edition, 2018.

6.4- Periodicals, Web Sites, ... etc

- American journal of cardiology
- American journal of Diabetes
- American journal of hematology

7. Facilities Required for Teaching and Learning

- Adequate infrastructure including:
 - Teaching classes, teaching halls, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
- Teaching tools including: screens ,computers, data show, video players digital, white boards, colour and laser printers, Models and mannequins
- Video tapes and scientific pictures archives and Radiology collections and archives.

Course Coordinator: Dr. Mohamed Mustafa Ahmed Malak.

Head of Department: Prof. Usama Ahmed Arafa.

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

Course Specifications of Neurology in Master degree in Ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: master degree in ophthalmology
2. Major or minor element of program: minor
3. Department offering the program: Ophthalmology department
4. Department offering the course: Neurology and psychiatry 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 neurology in Master degree in Ophthalmology

Code:NEU0522-200

Credit Hours:

Module	Lecture	Practical	Clinical	Total	Credit
Neurology	15		30	45	2

B. Professional Information

1. Overall Aims of Course

Upon successful completion of this course, the graduate should be able to professionally analyze and interpret neurological cases and apply the obtained data independently in diagnosing the abnormalities in nervous system

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and understanding

By the end of the course the student should have the ability to:

- a1. Describe the natural history of ophthalmologic diseases

b) Intellectual skills

By the end of the course the student should have the ability to:

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

c) Professional and practical skills

By the end of the course the student should have the ability to:

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

d) General and transferable skills

By the end of the course the student should have the ability to:

- d1. Use of different sources to obtain information and knowledge
- d2. Learn himself continuously

3. Contents

Title	Total no. of hours	Lectures	clinical
1- Cranial nerves	4	2	5
2- Stroke	4	3	4
3- Headache	4	2	2
4- Brain oedema	4	1	3
5- M.S	4	1	3
6- Muscle disease	7	2	5
7- Ophthalmoplegia	6	2	4
8- Nystagmus	6	2	4
Total	45	15	30
Credit	2	1	1

4. Teaching and Learning Methods

- 4.1-Lectures.
- 4.2-clinical methods.
- 4.3- attendance in the outpatient clinic

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	- Knowledge, Intellectual skills, General transferable skills
5.4-OSCE	-Practical skills, intellectual skills General transferable skills

Assessment Schedule

Assessment Final written exam....	Week:24
Assessment ...Final OSCE ...	Week:22
AssessmentFinal Structured Oral Exam	Week:24

Weighting of Assessments

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

6. List of References

6.1- Course Notes

Lecture notes prepared by the staff members of the department

6.2Essential books:

- Brain 's Disease of The Nervous System.
- Brain ' s Clinical Neurology.

6.3Recommended books:

- Adams & Victor's, Principle of Clinical Neurology.

- Neurology in clinical practice.
- Clinical Neurology.
- Manual of neurologic therapeutics.
- Merret's Neurology.

6.4 Periodicals , Web Sites:

- <http://www.google.com>
- <http://www.ncbi.nlm.gov.com>

<http://www.freemedicaljournals.com>

7. Facilities Required for Teaching and Learning

- Adequate infrastructure including:
 - Teaching classes, teaching halls, comfortable discs, bathrooms, good illumination, good aeration, and good safety tools
- Teaching tools including: screens ,computers, data show, video players digital, white boards, colour and laser printers, Models and mannequins
- Video tapes and scientific pictures archives and Radiology collections and archives.

Course Coordinator : Dr. Mohamed Nsr

Head of Department: Prof. Gharib Fawy

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

Course Specifications of Applied biostatistics (with computer use) and Research Methodology in Master degree of Ophthalmology

Sohag University

Faculty of Medicine

1. Program title : Master degree in Ophthalmology
2. Major/minor element of the program : Minor
3. Department offering the course: Community Medicine and public Health Dep.
4. Department offering the program: Ophthalmology
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: Master degree in Ophthalmology Biostatistics and Computer use for health services **and Research Methodology**

Code: COM: 0522-200

Total Hours:

Title	Lectures	Practical/ surgical	Total	credit
Applied biostatistics and computers & Research methodology	15	30	45	2

B. Professional Information

1. Overall Aims of Course

Applied Biostatistics Module:

- a. To influence the students to adopt an analytical thinking for evidence based medicine.
- b. To use precisely the research methodology in researches and computer programs SPSS, Epi Info and Excel in data analysis.

Research Methodology Module:

The aim of this course is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary to provide further training and practice in the field of Public health and Community Medicine through providing:

1. Recent scientific knowledge essential for the mastery of practice of Public Health and Community Medicine according to the international standards.
2. Skills necessary for preparing for proper diagnosis and management of community problems, skills for conducting and supervising researches on basic scientific methodology.
3. Ethical principles related to the practice in this specialty.

4. Active participation in community needs assessment and problems identification.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Upgrading research interest and abilities.

2. Intended Learning Outcomes of Courses (ILOs)

Applied Biostatistics Module:

a) Knowledge and understanding:

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

- a1. Mention 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 allowed to:

- b1. Mention how to collect and verify data from different sources
- b2. Interpret data to diagnose prevalent problems Ophthalmology

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

- c1. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in Ophthalmology

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.

Research Methodology Module:

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. Mention 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

a8. Identify principles of evidence based medicine.

b) Intellectual Skills

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

- b1. Conduct research studies that adds to knowledge.
- b2. Formulate scientific papers in the area of public health and community medicine
- b3. Innovate and create researches to find solutions to prevalent community health problems
- b4. Criticize researches related to public health and community medicine

c) Professional and Practical Skills:

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

- c1. Enumerate 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 conducting researches. .

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
Applied Biostatistics Module:			
Recent advances in collection, analysis and interpretation of data	3	1	2
-Details of Tests of significance: Proportion test	3	1	2
-Chi-square test	1.5	.5	1
-Student T test	1.5	.5	1
-Paired T test	1.5	.5	1
-Correlation	1.5	.5	1
-Regression	2	1	1
-ANOVA test	3	1	2
-Discrimination analysis	3	1	2
-Factor analysis	3	1	2
-Parametric and non parametric tests	4.5	.5	4
Research Methodology Module:			
Details of epidemiological studies (case control, cohort and cross sectional)	3	1	2
Clinical trials, Quasi experimental study	3	1	2
Bias and errors	2	1	1
Setting a hypothesis	1.5	.5	1
Recent advances in screening	1.5	.5	1

- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	3	1	2
Setting an objective - Critical thinking	2	1	1
Formulation of papers	1.5	.5	1
Total hours	45	15	30
Total Credit hours	2	1	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 Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills, - Practical skills, intellectual skills
5.3-Structured Oral Exams	- Knowledge
5.4Computer search assignment	- general transferable skills, intellectual skills

Assessment Schedule

- Assessment 1....Final written exam Week: 24
- Assessment 2....Final 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 oral Examination	50%
Total	100%

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

6. List of References

Applied Biostatistics Module:

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
- 3- WWW. CDC and WHO sites

Research Methodology Module:

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
- 3- WWW. CDC and WHO sites

7. Facilities Required for Teaching and Learning:

Applied Biostatistics Module:

- Adequate conditioned space for staff and assistants.
- Adequate conditioned teaching facilities.
- Audiovisual Aids: Data show, overhead and slide projectors and their requirements.

Research Methodology Module:

- ADEQUATE INFRASTRUCTURE: including teaching places (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.
- TEACHING TOOLS: including screens, computers including cd (rw), data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.

Course Coordinator: Dr/Rasha Abd El- Hammed

Head of Department: Prof/ Ahmed Fathy Hamed

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

Course Specification of Medical Ophthalmology, Surgical ophthalmology in Master degree in ophthalmology

Sohag University

Faculty of Medicine

1. Program on which the course is given: Master 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: second 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, surgical ophthalmology and pathology for master degree in Ophthalmology

Code:OPH0522-200

Total hours :

Module	Lectures	Practical/s urgical	clinical	Total hours	Credit
Medical ophthalmology	120 hours		150	270 hours	13
Surgical ophthalmology	90 hours	150		240 hours	11

B. Professional Information

1. Overall Aims of Course

Medical ophthalmology module:

By the end of the course, the candidate should be able to:

- 1- Deal with common ophthalmological conditions on the basis of adequate history taking, physical examination interpretation of relevant supportive investigations and management.
- 2- Deal with ocular emergencies.
- 3- Perceive and integrate progress in ophthalmological technology.

Surgical ophthalmology module:

By the end of the course, the candidate should be able to:

- 1- Deal with common ophthalmological conditions on the basis of adequate history taking, physical examination interpretation of relevant supportive investigations and management.
- 2- Surgical management of ocular emergencies.
- 3- Know and perform surgical and management of common ophthalmological diseases.

2. Intended Learning Outcomes of Course (ILOs)

Medical ophthalmology module:

a) Knowledge and Understanding:

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

- a1. Enumerate the natural history of ophthalmologic diseases
- a2. Mention the causation of ophthalmologic diseases.
- a3. Enumerate Methods of eye health and preventing its illness
- a4. List the clinical picture and differential diagnosis of ophthalmologic illnesses.
- a5. Enumerate concepts in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses
- a6. Describe concepts in the various therapeutic methods/alternatives used for ophthalmologic diseases
- a7. Enumerate the mutual influence between professional practice and its impacts on the environment.
- a8. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology.
- a9. List the principles and fundamentals of quality of professional practice in the field of ophthalmology
- a10. Mention the principles, basics and ethics of scientific research

b) Intellectual Skills

By the end of the course, the student should 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. Conduct a research study and /or write a scientific study on a research problem
- b4. Assess risk in professional practices in the field of ophthalmology
- b5. Plan to improve performance in the field of ophthalmology
- b6. Identify ophthalmologic problems and find solutions.
- b7. Analyze reading of research and issues related to the ophthalmology

c) Professional and Practical Skills

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

- c1. Master the basic and modern professional clinical skills in the area of ophthalmology
- c2. Write and evaluate medical reports.
- c3. Evaluate and develop methods and tools existing in the area of ophthalmology

d) General and Transferable Skills

By the end of the course, the student 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

Surgical ophthalmology module:

a) Knowledge and Understanding:

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

- a1. Enumerate the natural history of ophthalmologic diseases
- a2. Enumerate the causation of ophthalmologic diseases.
- a3. Enumerate Methods of eye health and preventing its illness
- a4. List the clinical picture and differential diagnosis of ophthalmologic illnesses.
- a5. Enumerate concepts in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses
- a6. Describe concepts in the various therapeutic methods/alternatives used for ophthalmologic diseases
- a7. Enumerate the mutual influence between professional practice and its impacts on the environment.
- a8. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology.
- a9. Mention the principles and fundamentals of quality of professional practice in the field of ophthalmology
- a10. Enumerate the principles, basics and ethics of scientific research

b) Intellectual Skills

By the end of the course, the student should 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. Conduct a research study and /or write a scientific study on a research problem
- b4. Assess risk in professional practices in the field of ophthalmology
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- d6. Work in a team, and team's leadership in various professional contexts
- d7. Manage time efficiently.
- d8. Learn himself continuously

3. Contents

Medical ophthalmology module:

Topics	Total no of hours	Lectures	clinical
Introduction, Ocular Symptoms and Signs	18	10	8
-eye lids	21	8	13
cornea	20	10	10
-conjunctiva	16	8	8
-lacrimal apparatus	20	10	10
glaucoma	27	9	18
Vitreous	16	8	8
uveitis	20	10	10
<u>Retina</u>	25	10	15
Optic nerve	14	4	10
Strabismus	17	7	10
Orbit	16	6	10
Ocular trauma	20	10	10
Systemic diseases and the eye	20	10	10
Total	270	120	150
Credit	13	8	5

Surgical ophthalmology module:

Topics	Total No. of hours	Lectures	practical
General principles of ocular surgery	6	2	4
Sterilization and disinfection	6	2	4
Ocular anaesthesia	12	4	8
-surgical diseases of eye lids	12	4	8
Surgical diseases of the cornea	14	4	10
Surgical diseases of the conjunctiva	16	6	10
Surgical disease of the lacrimal system	16	8	8
Surgical diseases of the lens, cataract	34	14	20
Surgical management of glaucoma	35	10	15
Surgical diseases of the <u>Retina</u>	23	8	15
Refractive surgery	18	8	10
Principles ,types ,applications			
Strabismus	28	8	20
Esotropia, exotropia, clinical evaluation, management			
Surgical diseases of the Orbit	14	4	10

Surgical management of ocular trauma	21	8	13
Total	240	90	150
Credit	11	6	0

4. Learning Methods

- 4.1- Illustrated lectures
- 4.2- Clinical rounds on patients.
- 4.3- Attendance in outpatients' clinic.
- 4.4- Case studies in department conference.
- 4.5- Assignments for the students to empower and assess the general and transferable skills
- 4.6 Attendance workshops, conferences and thesis discussion

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 assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment Final written exam....	Week: 94
Assessment ...Final OSCE ...	Week: 96
AssessmentFinal Structured Oral Exam	Week

Weighting of Assessments

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

Medical ophthalmology module:

6.1- Course Notes

Lecture notes prepared by staff members in the department

6.2- Essential Books (Text Books)

- kaniski: 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

Surgical ophthalmology module

6.1- Course Notes

Lecture notes prepared by staff members in the department

6.2- Essential Books (Text Books)

- kanski: text book of ophthalmology
- Spaeths' ocular surgery
- Cataract Surgery of Jaffey
- Becker and Shaefer Management of Glaucoma

6.3- Recommended Books

Master techniques of cataract and refractive surgery

6.4: periodicals and websites:

American Journal of cataract and refractive surgery

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, colour and laser printers

Course Coordinator: Dr. Mohamed Ezz El-Dawla

Head of Department: Prof. Hatem Gamal Ammar

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