

MD ophthalmology update 2014-2015

جامعة بنها
كلية الطب البشرى
قسم طب وجراحة العين

توصيف برنامج الدكتوراة (عام 2014 – 2013)

1 - معلومات أساسية : Basic information

- ١ - اسم البرنامج : **MD degree of Ophthalmology** دكتوراة طب وجراحة العين
- ٢ - طبيعة البرنامج : Single (أحادى)
- ٣- القسم المسئول عن البرنامج: Ophthalmology department
- ٤- تاريخ إقرار البرنامج فى مجلس القسم : 1 / 9 / 2013
- ٥- تاريخ إقرار البرنامج فى مجلس الكلية: 15 / 9 / 2013
- ٦- مسؤول البرنامج:

Prof. Dr. Esam El Matbouly, prof. of ophthalmology

٧- المراجعة الداخلية للبرنامج:

Prof .Dr. Ayman Nassar , prof. of ophthalmology

٨- المراجعة الخارجية للبرنامج:

Prof. Dr. Abdelkhalek Elsaadany, Professor of Ophthalmology, Menofia University

2-معلومات متخصصة: Professional information

١ - الأهداف العامة للبرنامج :

1- Program aims:

The overall aims of the program are:

- 1-1 Acquiring the basics and advances in ophthalmic research.
- 1-2 Promoting the ability to update his knowledge and practice.

MD ophthalmology update 2014-2015

- 1-3 Analyzing and integrating data obtained from history taking, clinical examination and investigations properly for ideal management of the ophthalmic patient.
- 1-4 Communicating with other medical specialties to develop links and improve ophthalmic practice.
- 1-5 Dealing with day to day challenges and new issues in the ophthalmic practice.
- 1-6 Developing creative methods in dealing with ophthalmic problems.
- 1-7 Performing wide variety of ophthalmic surgeries and skills in the proper scientific manner.
- 1-8 Practicing the evidence-based medicine.
- 1-9 Creating new methods and skills in practicing ophthalmology.
- 1-10 Communicating with colleagues in different ophthalmic centers to improve his knowledge.
- 1-11 Make benefit of recent technology in ophthalmic practice.
- 1-12 Leading a team work and making proper decisions.
- 1-13 Attending conferences, seminars and workshops with active participation in their activities.
- 1-14 Using available resources and developing new resources to improve the ophthalmic practice.
- 1-15 Sharing in community development and providing solutions for its needs.
- 1-16 Committing ethical research behavior and decency .
- 1-17 Training the candidates and colleagues for proper methods of clinical examination and management to provide decision making skills for proper evaluation of the ophthalmic cases.

٢ - المخرجات التعليمية المستهدفة من البرنامج :

2-Intended Learning Outcomes (ILOS):

٢.أ - المعرفة والفهم :

2.a. Knowledge and Understanding:

On successful completion of the program, the graduate will be able to:

2.a.1. Recognize the normal structure and function of the human eye on the macro and micro levels.

MD ophthalmology update 2014-2015

- 2.a.2. Understand** the normal growth and development of the human eye.
- 2.a.3. Illustrate** the abnormal structure, function, growth and development of human eye
- 2.a.4. Understand** the optics of the eye
- 2.a.5. Explain** the relation between surgical diseases and the eye
- 2.a.6. Understand** the relation between medical diseases and the eye
- 2.a.7. Highlight** the relation between neurological diseases and the eye
- 2.a.8. Understand** the natural history of ophthalmologic diseases.
- 2.a.9. Describe** the causation of ophthalmologic diseases.
- 2.a.10. Know** Methods of eye health and preventing its illness.
- 2.a.11. Categorize** the clinical picture and differential diagnosis of ophthalmologic illnesses.
- 2.a.12. Discuss** concepts in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses.
- 2.a.13. Describe** concepts in the various therapeutic methods/alternatives used for ophthalmologic diseases
- 2.a.14. Know** the scientific development in the field of ophthalmology.
- 2.a.15. Understand** the mutual influence between professional practice and its impacts on the environment.
- 2.a.16. Demonstrate** the principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology.
- 2.a.17. Know** the principles and fundamentals of quality of professional practice in the field of ophthalmology
- 2.a.18. Identify** the principles, basics and ethics of scientific research

٢. ب - القدرات الذهنية :

2.b. Intellectual Skills:-

On successful completion of the program, the graduate will be able to:

- 2.b.1. Interpret** data acquired through history taking to reach a provisional diagnosis for ophthalmologic diseases.

MD ophthalmology update 2014-2015

2.b.2. Distinguish from different diagnostic alternatives the ones that help reaching a final diagnosis for ophthalmologic problems.

2.b.3. Construct a research study and /or write a scientific study on a research problem

2.b.4. Analyze risk in professional practices in the field of ophthalmology

2.b.5. Plan to improve performance in the field of ophthalmology

2.b.6. Distinguish ophthalmologic problems and find solutions.

2.b.7. Analyze reading of research and issues related to the ophthalmology

2.b.8. Relate between knowledge for Professional problems' solving.

2.b.9 Construct an evidence-based practice and research

٢.ج - مهارات مهنية وعملية :

2.c. Practical and Professional Skills:-

On successful completion of the program, the graduate will be able to:

2.c.1. Apply the basic and modern professional clinical skills in the area of ophthalmology

2.c.2 Implement technology and recent knowledge to improve ophthalmic practice

2.c.3 Design plans improve his own clinical practice and his colleagues

2.c.4. Write and evaluate medical reports.

2.c.5. Manage and develop methods and tools existing in the area of ophthalmology

٢.د. مهارات عامة ومنتقلة :

2.d. General and transferable skills:-

On successful completion of the program, the graduate will be able to:

2.d.1. Communicate effectively by all types of effective communication

2.d.2. Use information technology to serve the development of professional practice.

2.d.3. Assess himself and identify his personal learning needs.

2.d.4. Use of different sources to obtain information and knowledge

2.d.5. Develop rules and indications for assessing the performance of others.

2.d.6. Establish a teamwork, and team's leadership in various professional contexts

MD ophthalmology update 2014-2015

2.d.7. Manage time efficiently.

2.d.8. Teach himself continuously

٣ - المعايير الأكاديمية للبرنامج :

3. Academic Standards

a) المعايير الأكاديمية لبرنامج دكتوراة طب وجراحة العين

Academic Reference Standards (ARS) of MD Program of Ophthalmology, approved in department council date 2 / 6 / 2013, and in faculty council no (354) date 16 / 6 / 2013 .

4- العلامات المرجعية:
a) المعايير القياسية لبرامج الدراسات العليا (درجة الدكتوراة) الصادرة عن الهيئة القومية لجودة التعليم والإعتماد (مارس ٢٠٠٩)
Academic reference standards (ARS) , MD Program (March 2009)
, which were issued by the National Authority for Quality Assurance & Accreditation of Education NAQAAE (ملحق ٢)

5 - هيكل ومكونات البرنامج :

(5): Program structure and contents:

أ - مدة البرنامج : Two and half years

Two and half years to pass M.D degree

Program duration : 60 weeks

1st part: - One Semester (15 weeks).

2nd part: - Three Semesters (45 weeks).

Thesis : Four Semesters (60 week) starting by the begening of the second part

MD ophthalmology update 2014-2015

ب - هيكل البرنامج

Program structure

- Total hours of program 60 credit hours
- Theoretical 30 credit hours
- Practical 30 credit hours
- elective : None

ج- مستويات ومقررات البرنامج :

المساعات المعتمدة	الكود	المقررات	البند
٦ ساعات			الجزء الأول
١,٥ ساعة	OPHT 701	تشريح وأجنة Anatomy & Embryology	
١,٥ ساعة	OPHT 702	فسيولوجيا Physiology	
١,٥ ساعة	OPHT 703	بصريات Optics	
١,٥ ساعة	OPHT 704	باثولوجي وباكثولوجي Pathology & bacteriology	
٢٤ ساعة		التدريب النظري والعملية ويشمل:	الجزء الثاني
يوم=١/٨ساعة	OPHT 705	حضور المرور بالقسم	
لستة=١/٨ساعة	OPHT 706	حضور لستة العمليات	
عيادة=١/٨ساعة	OPHT 707	حضور العيادات الخارجية	
يوم=١/٥ساعة	OPHT 708	حضور محاضرات الدراسات العليا Postgraduate	
		تدريب علي أحد تخصصات العيون الدقيقة Subspeciality	
	OPHT 709	1- Cataract المياه البيضاء	
	OPHT 710	2- Glaucoma المياه الزرقاء	
	OPHT 711	3- Vitreo-retinal surgery جراحة الجسم الزجاجي والشبكية	

MD ophthalmology update 2014-2015

	OPHT 712	4- Refractive surgery جراحة قصر النظر	
	OPHT	5- Oculoplastics جراحة تجميل	
	OPHT 714	6- Paediatric Ophthalmology & Strabismus طب وعيون الأطفال والحوال	
	OPHT 715	7- Cornea and external diseases أمراض القرنية والعين الخارجية	
	OPHT 716	8-Medical and investigative ophthalmology	
	OPHT 717	Neurophthalmology الأمراض العصبية والرمذ	
	OPHT 718	Medical Retina أمراض الشبكية	
	OPHT 719	Uveitis إلتهاب البوفيا	
	OPHT 720	Investigative Ophthalmology فحوص أمراض العيون	
١٥ ساعة		تسجل بها الأنشطة مثل:	كراسة أنشطة
ندوة- ٨/١ ساعة		حضور ندوات علمية وندوات الدوريات	
		Journal club	
مؤتمر= ٢/١		حضور المؤتمرات المحلية	
مؤتمر= ٢/١		حضور مؤتمرات عالمية	
دورة ٥/١		حضور دورات تدريبية	
١٥ ساعة			رسالة
٦٠ ساعة			إجمالي

First part (One semester)

a- Compulsory courses:

MD ophthalmology update 2014-2015

Code number	Course title	Total number of hours	No. of hours/weeks			Total teaching hours/24 weeks
			Lecture	Lab	clinical	
OPHT 701	Anatomy of the eye	2	1	-	1	48
OPHT 702	physiology of the eye	2	2	-	-	48
OPHT 703	optics of the eye	4	2	2	-	96
OPHT 704	Pathology of the eye	4	2	0	2	96
Total						288

b- **selective:**none

c- Elective courses: none

Second part (3 semesters)

a- Compulsory courses:

Code number	Course title	Total number of hours	No. of hours/weeks			Total teaching hours/72 weeks
			Lecture	Lab	clinical	
OPHT 705 to 720	Ophthalmology I	4	2	-	2	288
OPHT	Ophthalmology	4	2	-	2	288

MD ophthalmology update 2014-2015

705 to 720	II					
Total						576

- a- selectivenone
b- Elective courses: none

- تم ضم المقررات المتشابهة في مقررين تحت مسمى :

- Ophthalmology I code : (OPTH 705 to 720)
- Ophthalmology II code : (OPTH 705 to 720)

مجلس قسم بتاريخ 2 / 6 / 2013

مجلس كلية رقم 354 بتاريخ 16 / 6 / 2013

6- محتويات المقررات (راجع توصيف المقررات)

7 - متطلبات الإلتحاق بالبرنامج :

(7): Program admission requirements:

مادة (٢٣) : يشترط لقياد الطالب لدرجة الدكتوراه فى الطب أو الجراحة أو العلوم الطبية الأساسية أن يكون حاصلًا على درجة

الماجستير فى مادة التخصص بتقدير جيد على الأقل من إحدى جامعات ج . م . ع أو على درجة معادلة لها من

معهد علمى آخر معترف به من الجامعة .

☒ مدة الدراسة لنيل الدكتوراه سنتان ونصف موزعة كما لآتى :

- جزء أول : علوم أساسية • فصل دراسى لمدة ستة شهور (٦ ساعات معتمدة) ومن يرسلب يعيد مادة الرسوب فقط .

MD ophthalmology update 2014-2015

- **الجزء الثانى :** ثلاث فصول دراسية لمدة سنة ونصف (٣٩) ساعة معتمدة يستوفى خلالها الطالب الساعات المعتمدة
ثم يسمح له بالتقدم لامتحان التحريرى وإذا اجتاز الامتحان التحريرى بنجاح يحق له التقدم الى
الامتحان الشفهى والعملى والإكلينيكي خلال شهر من تاريخ الامتحان التحريرى •
- رسالة (١٥ ساعة معتمدة)
تبدأ الدراسة عند بداية التسجيل تنتهى بامتحان شامل فى نهاية كل أربع فصول دراسية بعد اجتياز الطالب
امتحانات الجزء الأول بنجاح يسمح له بتسجيل رسالة لمدة أربعة فصول دراسية تبدأ عند بداية الفصل الدراسى الثانى
وتناقش بعد مرور عامين على الأقل من تاريخ تسجيل الرسالة على أن تكون المناقشة بعد ستة اشهر على الأقل مع
اجتياز الامتحان التحريرى والإكلينيكية والشفهى (الامتحان الشامل) •
يمنح الطالب الدرجة بعد مناقشة الرسالة واجتياز الامتحان الشامل •
- يكون التقدم للقيده لدرجة الدكتوراه مر تين فى السنة خلال شهرى مارس وأكتوبر من كل عام •

8 - القواعد المنظمة لإستكمال البرنامج :

- مادة (٢٤) : يشترط فى الطالب لنيل درجة الدكتوراه فى الطب أو الجراحة أو العلوم الطبية الأساسية ما يلى :
- حضور المقررات الدراسية بصفة مرضية طبقا للساعات المعتمدة •
- أن يقوم ببحث فى موضوع تفره الجامعة بعد موافقة مجلس الكلية والقسم لمدة سنتان على الأقل •
- أن يتقدم بنتائج البحث فى رسالة تقبلها لجنة الحكم بعد مناقشة علنية للرسالة •
- اجتياز الطالب ثلاث دورات فى الحاسب الألى (دورة فى مقدمة الحاسب الألى - دورة تدريبية " متوسطة " - دورة فى تطبيقات الحاسب الألى) • وذلك قبل مناقشة الرسالة •
- اجتياز الطالب اختبار التوفيل بمستوى لا يقل عن ٥٠٠ وحدة وذلك قبل مناقشة الرسالة •
- أن يجتاز بنجاح الاختبارات التحريرية والإكلينيكية والشفهية المقررة وفقا لما هو مبين باللائحة •
- مادة (٢٥) : على الطالب أن يقيد اسمه للامتحان قبل موعده بشهر على الأقل •

MD ophthalmology update 2014-2015

مادة (٢٦) : يشترط لنجاح الطالب فى امتحان الدكتوراه الحصول على الحد الأدنى للنجاح فى جميع الاختبارات المقررة وفى كل جزء من أجزاءها على حدة ذلك بأخذ المتوسط لتقديرات أعضاء اللجنة اذا رسب الطالب فى أى مقرر من المقررات بعد الامتحان فى جميع المقررات •

مادة (٢٧) : يعقد الامتحان التحريرى لدرجة الدكتوراه فى شهرى نوفمبر ومايو من كل عام - لمن يجتاز الامتحان التحريرى فى نفس الدور يتقدم الامتحان الشفهى والاكلينىكى والعملى

مادة (٢٨) : لا يجوز للطالب أن يبقى مقيدا لدرجة الدكتوراه لأكثر من أربع سنوات دون أن يتقدم لمناقشة الرسالة ويجوز لمجلس الكلية أن يعطى الطالب مهلة لمدة سنتين فى حالة قبول العذر •

مادة (٢٩) : تضاف درجات التحريرى ووصف الحالة لبعضها ويعتبر النجاح والرسوب فى المجموع الكلى للتحريرى (٦٠% على الأقل من الدرجة النهائية للتحريرى) ومن ينجح فى الامتحان التحريرى يصرح له بدخول باقى الامتحانات الإكلينيكية والشفوية والعملية وعدد الرسوب يعيد الطالب الامتحان الشفوى والاكلينىكى •
لا يحق للطالب التقدم لامتحان التحريرى أكثر من أربع مرات •

مادة (٣٠) : تبين فى شهادة الدكتوراة موضوع الرسالة والمادة أو المواد الاختيارية •

مادة (٣١) : تبين الجداول فى الباب الخامس المقررات الدراسية التى تدرس لنيل درجة الدكتوراه طبقا للساعات المعتمدة الاختبارات التحريرية والإكلينيكية والشفوية •

9 - طرق وقواعد تقييم المتحقيين بالبرنامج :

9- Students Assessment methods:

م	الطريقة	ما تقيسة من مخرجات التعلم المستهدفة
1	Written examination	To assess knowledge and understanding & intellectual skills: From 2.a.1.....2.a.18. and 2.b.1.....2.b.9.

MD ophthalmology update 2014-2015

To assess knowledge and understanding, intellectual skills & General & transferable skills 2.a.1.....2.a.18., 2.b.1.....2.b.9., 2.d.1.....2.d.8.	Oral examination	2
To assess knowledge and understanding, intellectual skills & practical and clinical skills and General & transferable skills: 2.a.1.....2.a.18., 2.b.1.....2.b.9., 2.c.1.....2.c.5. 2.d.1.....2.d.8	Practical & clinical examination	3

First part:

إجمالي	الدرجة				الاختبار	المقرر
	إكلينيكي	عملي	نظري	تحريري		
٢٠٠			١٠٠	١٠٠	اختبار تحريري مدته ثلاث ساعات + اختبار نظري وعملي	تشريح فسيولوجي
٢٠٠			١٠٠	١٠٠		
٢٠٠			١٠٠	١٠٠	اختبار تحريري مدته ثلاث ساعات + اختبار نظري وعملي	بصريات باطولوجي
٢٠٠			١٠٠	١٠٠		
٨٠٠	إجمالي الدرجة					

Second part

إجمالي	الدرجة				الاختبار	المقرر
	عملي	إكلينيكي	نظري	تحريري		
٣٠٠		٧٥	٧٥	١٥٠	اختبار تحريري مدته ثلاث ساعات + اختبار نظري وعملي	طب وجراحة العين ١
٣٠٠		٧٥	٧٥	١٥٠		
					اختبار تحريري مدته ثلاث ساعات + اختبار نظري وعملي	طب وجراحة العين ٢

MD ophthalmology update 2014-2015

٦٠٠	إجمالي الدرجة	
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10 - طرق تقويم البرنامج:

10- Evaluation of Program:

Evaluator	Tools	Sample
Internal evaluator (s) مقيّم داخلي	Focus group discussion Meetings	<u>Reprort</u>
External Evaluator (s) مقيّم خارجي	Reviewing according to external evaluator checklist report of NAQAA	<u>Report</u>
Senior student (s) طلاب السنة النهائية	مقابلات , استبيان	<u>All</u>
Alumni الخريجون	مقابلات , استبيان	<u>Not less than 50% from the last 3 years</u>
Stakeholder (s) أصحاب العمل	مقابلات , استبيان	<u>Representative samples from all sectors</u>
Others طرق أخرى	None	<u>All</u>

11: استراتيجيات التعليم و التعلم علي مستوي البرنامج:

١. استراتيجية التعلم النشط. **Active learning**
٢. استراتيجية التعليم المبني على النتائج. **Outcome-based learning**
٣. استراتيجية التعليم المبني على حل المشكلات. **Problem-based learning**

المسئول عن البرنامج : أ.د. عصام المتبولي التوقيع التاريخ :

1/9/2013

Program Coordinator:

Name Prof Dr ...Essam Elmatbouly..... Signature.....Date

MD ophthalmology update 2014-2015

الملحقات :

ملحق ١ : Academic standard of the MD ophthalmology program

ملحق ٢ : المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة.

ملحق ٣ : مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا الصادرة عن الهيئة.

ملحق ٤ : مصفوفة البرنامج مع المعايير الأكاديمية للبرنامج.

ملحق ٥ : مصفوفة المقررات مع البرنامج Program-Courses ILOs Matrix

ملحق رقم ٦ : توصيف المقررات

المعايير الأكاديمية المرجعية لبرنامج دكتوراة طب وجراحة العين

١- مواصفات الخريج:

خريج برنامج دكتوراة طب وجراحة العين يجب أن يكون قادرا على:

- 1-1 Mastering essentials and advances in ophthalmic research
- 1-2 Updating his ophthalmic knowledge and practice
- 1-3 Analyzing and integrating data obtained from history taking, clinical examination and investigations properly for ideal management of the ophthalmic patient
- 1-4 Integrating other medical specialties and developing links between ophthalmic practice and
- 1-5 Coping with current challenges and new issues in the ophthalmic practice
- 1-6 Developing creative methods in dealing with ophthalmic problems
- 1-7 Mastering wide variety of ophthalmic surgeries
- 1-8 Applying the evidence-based medicine in his practice
- 1-9 Developing new methods in practicing ophthalmology
- 1-10 Communicating with colleagues in different ophthalmic centers to improve his knowledge
- 1-11 Make benefit of recent technology in ophthalmic practice

MD ophthalmology update 2014-2015

- 1-12 Leading a team work and making proper decisions
- 1-13 Attending conferences, seminars and workshops with active participation in their activities
- 1-14 Using available resources and developing new resources to improve the ophthalmic practice
- 1-15 Sharing in community development and providing solutions for its needs
- 1-16 Committing ethical research behavior and decency
- 1-17 Training the candidates and colleagues for proper methods of clinical examination and management to provide decision making skills for proper evaluation of the ophthalmic cases

٢- المعايير القياسية العامة:

٢-١ - المعرفة والفهم :

2.1. Knowledge and Understanding:

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

- 2.1.1. Illustrate the normal structure and function of the human eye on the macro and micro levels.
- 2.1.2. Understand the normal growth and development of the human eye.
- 2.1.3. Describe the abnormal structure, function, growth and development of human eye
- 2.1.4. Understand the optics of the eye
- 2.1.5. Understand the relation between surgical diseases and the eye
- 2.1.6. Understand the relation between medical diseases and the eye

MD ophthalmology update 2014-2015

- 2.1.7.** Understand the relation between neurological diseases and the eye
- 2.1.8.** Understand the natural history of ophthalmologic diseases.
- 2.1.9.** Understand the causation of ophthalmologic diseases.
- 2.1.10.** Recognize Methods of eye health and preventing its illness.
- 2.1.11.** Describe the clinical picture and differential diagnosis of ophthalmologic illnesses.
- 2.1.12.** Enumerate concepts in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses.
- 2.1.13.** Describe concepts in the various therapeutic methods/alternatives used for ophthalmologic diseases
- 2.1.14.** Understand the scientific development in the field of ophthalmology.
- 2.1.15.** Understand the mutual influence between professional practice and its impacts on the environment.
- 2.1.16.** Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology.
- 2.1.17.** Know the principles and fundamentals of quality of professional practice in the field of ophthalmology
- 2.1.18.** Know the principles, basics and ethics of scientific research

. ب - القدرات الذهنية :

2.2. Intellectual Skills:-

By the end of the program the candidate should be able to:

- 2.2.1.** Data Interpretation acquired through history taking to reach a provisional diagnosis for ophthalmologic diseases

MD ophthalmology update 2014-2015

2.2.2. . Selection from different diagnostic alternatives the ones that help reaching a final diagnosis for ophthalmologic problems

2.2.3. Conduction of a research study and /or write a scientific study on a research problem

2.2.4. Risk assessment in professional practices in the field of ophthalmology and methods of risk management.

2.2.5 Plan to improve performance in the field of ophthalmology, applying the evidence based medicine

2.2.6. Identification ophthalmologic problems and find solutions to make proper decisions

2.2.7. . Reading and evaluating research and issues related to the ophthalmology

2.2.8. Link between knowledge for Professional problems' solving applying creative thinking.

2.2.9 Developing new tools and methods in ophthalmic practice

ج - مهارات مهنية وعملية :

2.3 Practical & Clinical Skills:-

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

2.3.1. Basic and modern professional clinical skills in the area of ophthalmology in professional manner. With sound knowledge about emerging methods that are still under trial.

2.3.2. Applying technology and recent knowledge to improve ophthalmic practice.

2.3.3. Planning to improve his own clinical practice and his colleagues

2.3.4. Write and evaluate medical reports.

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2.3.5. Evaluate and develop methods and tools existing in the area of ophthalmology

٢.د. مهارات عامة :

2.4. General and transferable skills:

By the end of the program the graduate will be able to:

2.4.1 Active communication using different sources

2.٤.2. Usage of information technology to serve the development of professional practice

2.4.3. Developing rules and indications for assessing the performance of others.

2.4.4. Assessment and identification of his personal learning needs and continuous self learning skills

2.4.5. Teamwork, and team leadership in various professional contexts

2.d.6. Using different resources to obtain knowledge

2.d.7. Efficient Time management

الاجتماع مجلس القسم، بتاريخ 2/6/2013...

رئيس مجلس القسم

أ.د. عصام المتبولي

الاجتماع مجلس الكلية

MD ophthalmology update 2014-2015

ملحق 2: المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة

برامج الدكتوراة

١- مواصفات الخريج :

خريج برنامج الدكتوراة فى اى تخصص يجب ان يكون قادرا على

- ١-١ اتقان اساسيات ومنهجيات البحث العلمى
- ٢-١ العمل المستمر على الاضافة للمعارف فى مجال التخصص
- ٣-١ تطبيق المنهج التحليلى والناقد للمعارف فى مجال التخصص والمجالات ذات العلاقة
- ٤-١ دمج المعارف المتخصصة مع المعارف ذات العلاقة مستنبطا ومطورا للعلاقات البينية بينها
- ٥-١ اظهار وعيا عميقا بالمشاكل الجارية والنظريات الحديثة فى مجال التخصص
- ٦-١ تحديد المشكلات المهنية وايجاد حلول مبتكرة لحلها
- ٧-١ اتقان نطاقا واسعا من المهارات المهنية فى مجال التخصص
- ٨-١ التوجه نحو تطوير طرق وادوات واساليب جديدة للمزاولة المهنية
- ٩-١ استخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسة المهنة
- ١٠-١ التواصل بفاعلية وقيادة فريق عمل فى سياقات مهنية مختلفة
- ١١-١ اتخاذ القرار فى ضل المعلومات المتاحة
- ١٢-١ توظيف الموارد المتاحة بكفاءة وتنميتها والعمل على ايجاد موارد جديدة
- ١٣-١ الوعى بدوره فى تنمية المجتمع والحفاظ على البيئة
- ١٤-١ التصرف بما يعكس الالتزام بالنزاهة والمصداقية وقواعد المهنة
- ١٥-١ الالتزام بالتنمية الذاتية المستمرة ونقل علمه وخبراته للاخرين

٢- المعايير القياسية

١-٢ المعرفة والفهم

MD ophthalmology update 2014-2015

- بانتهاة دراسة برنامج الدكتوراه يجب ان يكون الخريج قادرا على الفهم والدراية بكل من
- ١-١-٢ النظريات والاساسيات والحديث من المعارف فى مجال التخصص والمجالات ذات العلاقة
 - ٢-١-٢ اساسيات ومنهجيات واخلاقيات البحث العلمى وادواته المختلفة
 - ٣-١-٢ المبادئ الاخلاقية والقانونية للممارسة المهنية فى مجال التخصص
 - ٤-١-٢ مبادئ واساسيات الجودة فى الممارسة فى مجال التخصص
 - ٥-١-٢ المعارف المتعلقة بأثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها

٢-٢ المهارات الذهنية

- بانتهاة دراسة برنامج الدكتوراه يجب ان يكون الخريج قادرا على
- ١-٢-٢ تحليل وتقييم المعلومات فى مجال التخصص والقياس عليها والاستنباط منها
 - ٢-٢-٢ حل المشاكل المتخصصة استنادا على المعطيات المتاحة
 - 2-2-3 اجراء دراسات بحثية تضيف الى المعارف
 - ٤-٢-٢ صياغة أوراق علمية
 - ٥-٢-٢ تقييم المخاطر فى الممارسات النهائية
 - ٦-٢-٢ التخطيط لتطوير الأداء فى مجال التخصص
 - ٧-٢-٢ اتخاذ القرارات المهنية فى سياقات مهنية مختلفة
 - ٨-٢-٢ الابتكار / الابداع
 - ٩-٢-٢ الحوار والنقاش المبني على البراهين والأدلة

٢,٣ المهارات المهنية:

- بانتهاة دراسة برنامج الدكتوراه يجب ان يكون الخريج قادرا على
- ٢,٣,١ اتقان المهارات المهنية الأساسية والحديثة فى مجال التخصص
 - ٢,٣,٢ كتابة وتقييم التقارير المهنية
 - ٢,٣,٣ تقييم ونطوير الطرق والأدوات القائمة فى مجال التخصص
 - ٢,٣,٤ استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية

MD ophthalmology update 2014-2015

٢,٣,٥ التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين

٢,٤ .المهارات العامة والمتنقلة:

بانتهاج دراسة برنامج الدكتوراة يجب أن يكون الخريج قادرا علي:

٢,٤,١ التواصل الفعال بأنواعه المختلفة

٢,٤,٢ استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية

٢,٤,٣ تعليم الآخرين وتقييم أدائهم

٢,٤,٤ التقييم الذاتي والتعلم المستمر

٢,٤,٥ استخدام المصادر المختلفة للحصول على المعلومات والمعارف

٢,٤,٦ العمل في فريق وقيادة فريق العمل

٢,٤,٧ ادارة اللقاءات العلمية والقدرة على ادارة الوقت

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ملحق 3: مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا الصادرة عن الهيئة

مواصفات الخريج بالمعايير الأكاديمية لبرنامج دكتوراة طب العين وجراحاتها	مواصفات الخريج بالمعايير القياسية العامة لبرامج الدراسات العليا درجة الدكتوراة
<p>١- مواصفات الخريج:</p> <p>خريج برنامج دكتوراة طب وجراحة العين يجب أن يكون قادرا على:</p>	
1-1 Mastering essentials and advances in ophthalmic research	١-١ إتقان أساسيات ومنهجيات البحث العلمي
1-2 Updating his ophthalmic knowledge and practice	٢-١ العمل المستمر على الإضافة للمعارف في مجال التخصص
1-3 Analyzing and integrating data obtained from history taking, clinical examination and investigations properly for ideal management of the ophthalmic patient	٣-١ تطبيق المنهج التحليلي والناقد للمعارف في مجال التخصص
1-4 Integrating other medical specialties and developing links between ophthalmic practice and	٤-١ دمج المعارف المتخصصة مع المعارف ذات العلاقة مستنبطاً ومطوراً للعلاقات اليبينية بينها
1-5 Coping with current challenges and new issues in the ophthalmic	٥-١ اظهار وعيا عميقا بالمشاكل الجارية

MD ophthalmology update 2014-2015

practice	والنظريات الحديثة في مجال التخصص
1-6 Developing creative methods in dealing with ophthalmic problems	٦-١ تحديد المشكلات المهنية وإيجاد حلول مبتكرة لها
1-7 Mastering wide variety of ophthalmic surgeries	٧-١ إتقان نطاق واسع من المهارات المهنية في مجال التخصص
1-8 Developing new methods in practicing ophthalmology	٨-١ التوجه نحو تطوير طرق وأدوات وأساليب جديدة للمزاولة المهنية
1-9 Make benefit of recent technology in ophthalmic practice	٩-١ استخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية
1-10 Leading a team work and making proper decisions	١٠-١ التواصل بفاعلية وقيادة فريق عمل في سياقات مهنية مختلفة
	١١-١ اتخاذ القرار في ظل المعلومات المتاحة
1-14 Using available resources and developing new resources to improve the ophthalmic practice	١٢-١ توظيف الموارد المتاحة بكفاءة وتنميتها والعمل على إيجاد موارد جديدة
1-15 Sharing in community development and providing solutions for its needs	١٣-١ الوعي بدوره في تنمية المجتمع والحفاظ على البيئة
1-16 Committing ethical research behavior and decency	١٤-١ التصرف بما يعكس الالتزام بالنزاهة والمصداقية وقواعد المهنة
1-17 Training the candidates and colleagues for proper methods of clinical examination and management to provide decision making skills for proper evaluation	١٥-١ الالتزام بالتنمية الذاتية المستمرة ونقل علمه وخبرته للآخرين

MD ophthalmology update 2014-2015

of the ophthalmic cases	
1-8 Applying the evidence-based medicine in his practice	
1-10 Communicating with colleagues in different ophthalmic centers to improve his knowledge	
1-13 Attending conferences, seminars and workshops with active participation in their activities	
٢- المعايير القياسية العامة:	
١-٢- المعرفة والفهم :	
2.a. Knowledge and Understanding:	
<i>By the end of the program, the candidate should be able to have sound knowledge about:</i>	

MD ophthalmology update 2014-2015

<p>2.1.1. The normal structure and function of the human eye on the macroscopic and microscopic levels.</p> <p>2.1.2. The normal growth and development of the human eye. Along with the genetic basis of development and effects of gene mutation in various phases of development.</p> <p>2.1.3 Abnormal structure, function, growth and development of human eye and recent modalities in gene therapy</p> <p>2.1.4. Optics of the human eye</p> <p>2.1.5. Relations between surgical diseases and the eye</p> <p>2.1.6. Relations between medical diseases and the eye, life threatening conditions and syndromes with fatal manifestations or possible complications.</p> <p>2.1.7. Relations between neurological diseases and the eye</p> <p>2.1.8. Natural history of ophthalmologic diseases.</p> <p>2.1.9. Aetiology and pathophysiology of ophthalmologic diseases.</p> <p>2.1.10. Methods of eye health and preventing its illness, with rules about health education for the patient, parents</p>	<p>١-١-٢ النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة</p>
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MD ophthalmology update 2014-2015

<p>and health care providers.</p> <p>2.1.11. Clinical picture and differential diagnosis of ophthalmologic illness, and uncommon or non-classic presentation</p> <p>2.1.12. Concepts in the common diagnostic and laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses.</p> <p>2.1.13. Concepts in the various therapeutic methods/alternatives used for ophthalmologic diseases</p>	
<p>2.1.14 Principles and methods and ethics of scientific research</p>	<p>٢-١-٢ اساسيات و منهجيات و اخلاقيات البحث العلمي و ادواته المختلفة</p>
<p>2.1.16. Principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology.</p>	<p>٣-١-٢ المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص</p>
<p>2.1.17. Principles and fundamentals of quality of professional practice in the field of ophthalmology</p>	<p>٤-١-٢ مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص</p>
<p>2.1.15. Mutual influence between professional practice and its impacts on the environment</p>	<p>٥-١-٢ المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنية البيئة وصيانتها</p>

MD ophthalmology update 2014-2015

٢-٢ - المهارات الذهنية :

2.٢. Intellectual skills:

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

<p>2.٢.1. Data Interpretation acquired through history taking to reach a provisional diagnosis for ophthalmologic diseases</p>	<p>١-٢-٢ تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها</p>
<p>2.٢.2. Selection from different diagnostic alternatives the ones that help reaching a final diagnosis for ophthalmologic problems</p>	<p>٢-٢-٢ حل المشاكل المتخصصة استنادا على المعطيات المتاحة</p>
<p>2.٢.3. Conduction of a research study and /or write a scientific study on a research problem</p>	<p>٣-٢-٢ اجراء دراسات بحثية تضيف الى المعارف</p>
<p>2.٢.7. Reading and evaluating research and issues related to the ophthalmology</p>	<p>٤-٢-٢ صياغة أوراق علمية</p>
<p>2.٢.4. Risk assessment in professional practices in the field of ophthalmology and methods of risk management.</p>	<p>٥-٢-٢ تقييم المخاطر في الممارسات المهنية</p>
<p>2.2.9 Developing new tools and methods in ophthalmic practice</p>	<p>٦-٢-٢ التخطيط لتطوير الأداء في مجال التخصص</p>
<p>2.٢.6. Identification ophthalmologic problems and find solutions to make proper decisions</p>	<p>٧-٢-٢ اتخاذ القرارات المهنية في سياقات مهنية مختلفة</p>

MD ophthalmology update 2014-2015

<p>2.2.8. Link between knowledge for Professional problems' solving applying creative thinking</p>	<p>٨-٢-٢ الابتكار / الابداع</p>
<p>2.2.5. Plan to improve performance in the field of ophthalmology, applying the evidence based medicine</p>	<p>٩-٢-٢ الحوار والنقاش المبني على البراهين والأدلة</p>
<p style="text-align: right;">٢,٣ - مهارات مهنية وعملية :</p> <p>2. ٣. Practical & Clinical Skills:-</p> <p>By the end of the program, the student should be able to perform:</p>	
<p>2.3.1 Basic and modern professional clinical skills in the area of ophthalmology in professional manner. With sound knowledge about emerging methods that are still under trial.</p>	<p>٢,٣,١ اتقان المهارات المهنية الأساسية والحديثة في مجال التخصص</p>
<p>2.3.2 Applying technology and recent knowledge to improve ophthalmic practice</p>	<p>٢,٣,٤ استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية</p>
<p>2.3.3 Planning to improve his own clinical practice and his colleagues</p>	<p>٢,٣,٥ التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين</p>
<p>2.3.4. Write and evaluate medical reports.</p>	<p>٢,٣,٢ كتابة و تقييم التقارير المهنية</p>
<p>2.3.5. Evaluate and develop methods and tools existing in the area of</p>	<p>٢,٣,٣ تقييم و تطوير الطرق والأدوات القائمة في مجال التخصص</p>

MD ophthalmology update 2014-2015

ophthalmology	
2.4. مهارات عامة :	
2.4. General and transferable skills:	
By the end of the program the graduate will be able to have:	
2.4.1 Active communication using different sources	٢,٤,١ التواصل الفعال بأنواعه المختلفة
2.٤.2. Usage of information technology to serve the development of professional practice.	٢,٤,٢ استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية
2.4.3. Developing rules and indications for assessing the performance of others	٢,٤,٣ تعليم الآخرين وتقييم أدائهم
2.4.4. Assessment and identification of his personal learning needs and continuous self learning skills	٢,٤,٤ التقييم الذاتي والتعلم المستمر
2.4.5. Teamwork, and team leadership in various professional contexts	٢,٤,٦ العمل في فريق و قيادة فرق العمل
2.d.6. Using different resources to obtain information	٢,٤,٥ استخدام المصادر المختلفة للحصول على المعلومات والمعارف
2.d.7. Efficient Time management.	٢,٤,٧ ادارة اللقاءات العلمية والقدرة على ادارة الوقت

MD ophthalmology update 2014-2015

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ملحق 4: مصفوفة مضاهاة المعايير الأكاديمية للبرنامج و أهداف و نواتج تعلم البرنامج

أهداف البرنامج	المعايير الأكاديمية لبرنامج دكتوراة طب وجراحة العين (مواصفات الخريج)
1.1	1-1 Mastering essentials and advances in ophthalmic research
1.2	1-2 Updating his ophthalmic knowledge and practice
1.3	1-3 Analyzing and integrating data obtained from history taking, clinical examination and investigations properly for ideal management of the ophthalmic patient
1.4	1-4 Integrating other medical specialties and developing links between ophthalmic practice
1.5	1-5 coping with current challenges and new issues in the ophthalmic practice
1.6	1-6 Developing creative methods in dealing with ophthalmic problems
1.7	1-7 Mastering wide variety of ophthalmic surgeries
1.8	1-8 Applying the evidence-based medicine in his practice
1.9	1-9 Developing new methods in practicing ophthalmology
1.10	1-10 Communicating with colleagues in different ophthalmic centers to improve his knowledge
1.11	1-11 Make benefit of recent technology in ophthalmic practice
1.12	1-12 Leading a team work and making proper decisions
1.13	1-13 Attending conferences, seminars and workshops with active participation in their activities
1.14	1-14 Using available resources and developing new resources to improve the ophthalmic practice
1.15	1-15 Sharing in community development and providing solutions for its needs
1.16	1-16 Committing ethical research behavior and decency
1.17	1-17 Training the candidates and colleagues for proper methods of clinical examination and management to provide decision making skills for proper evaluation of the ophthalmic cases

MD ophthalmology update 2014-2015

نواتج تعلم البرنامج														المعايير الأكاديمية للبرنامج	
المعرفة والفهم															
2.a.1														√	<p>أ. المعرفة والفهم :</p> <p>By the end of the program, the candidate should be able to have sound knowledge about :</p> <p>2.1.1. The normal structure and function of the human eye on the macroscopic and microscopic levels.</p>
2.a.2														√	
2.a.3														√	<p>2.1.3. Abnormal structure, function, growth and development of human eye and recent modalities in gene therapy</p>
2.a.4														√	
2.a.5														√	<p>2.a.5. Relations between surgical diseases and the eye background of diseases</p>
2.a.6														√	
2.a.7														√	
2.a.8														√	
2.a.9														√	
2.a.10														√	
2.a.11														√	
2.a.12														√	
2.a.13														√	
2.a.14														√	
2.a.15														√	
2.a.16														√	
2.a.17														√	
2.a.18														√	

MD ophthalmology update 2014-2015

									√		√							2.1a.6. Relations between medical diseases and the eye, life threatening conditions and syndromes with fatal manifestations or possible complications.
											√							2.1.7. Relations between neurological diseases and the eye
									√									2.1.8. Natural history of ophthalmologic diseases
								√										2.1.9. Aetiology and pathophysiology of ophthalmologic diseases.
							√											2.1.10 . Methods of eye health and preventing its illness, with rules about health education for the patient, parents and health care providers.
						√												2.1.11. Clinical picture and differential diagnosis of ophthalmologic illness, and uncommon or non-classic presentation
					√				√			√						2.1.12 Concepts in the common diagnostic and

MD ophthalmology update 2014-2015

																			laboratory techniques necessary to establish diagnosis of ophthalmologic illnesses.
					√														2.1.13 Concepts in the various therapeutic methods/alternatives used for ophthalmologic diseases
			√																2.1.14 Scientific development in the field of ophthalmology.
				√	√														2.1.15 Mutual influence between professional practice and its impacts on the environment.
		√																	2.1.16. Principles and fundamentals of ethics and legal aspects of professional practice in the field of ophthalmology.
	√																		2.1.17. Principles and fundamentals of quality of professional practice in the field of ophthalmology
√																			2.1.18. Principles, basics and ethics of scientific research

MD ophthalmology update 2014-2015

المعايير الأكاديمية للبرنامج									
نواتج تعلم البرنامج									
Intellectual skills									
2.b.9	2.b.8	2.b.7	2.b.6	2.b.5	2.b.4	2.b.3	2.b.2	2.b.1	
								√	ب - القدرات الذهنية : By the end of the program, the candidate should be able to to gain sufficient skills about: 2.2.1. Data Interpretation acquired through history taking to reach a provisional diagnosis for ophthalmologic diseases.
							√		2.2.2. Selection from different diagnostic alternatives the ones that help reaching a final diagnosis for ophthalmologic problems
		√				√			2.2.3. Conduction of a research study and /or write a scientific study on a research problem
					√				2.2.4. Risk assessment in professional practices in the field of ophthalmology and methods of risk management.
	√			√					2.2.5 Plan to improve performance in the field of ophthalmology
			√						2.2.6 Identification ophthalmologic problems and find solutions.
		√							2.2.7. Reading of research and issues related to the ophthalmology
	√								2.2.8. Link between knowledge for Professional problems' solving
√									2.2.9 Developing new tools and methods in ophthalmic practice

MD ophthalmology update 2014-2015

المعايير الأكاديمية للبرنامج					
نواتج تعلم البرنامج					
Practical & Clinical Skills					
	2.c.5	2.c.4	2.c.3	2.c.2	2.c.1
					√
					<p style="text-align: right;">ج. - مهارات مهنية وعملية :</p> <p>By the end of the program, the candidate should be able to perform</p> <p>2.3.1. Basic and modern professional clinical skills in the area of ophthalmology in professional manner. With sound knowledge about emerging methods that are still under trial.</p>
				√	<p>2.3.2. Applying technology and recent knowledge to improve ophthalmic practice.</p>
			√		<p>2.3.3. Planning to improve his own clinical practice and his colleagues</p>
		√			<p>2.3.4. Write and evaluate medical reports</p>
	√				<p>2.3.5. Evaluate and develop methods and tools existing in the area of ophthalmology</p>

MD ophthalmology update 2014-2015

نواتج تعلم البرنامج							المعايير الأكاديمية للبرنامج
General and transferable skills							
	2.d.1	2.d.2	2.d.3	2.d.4	2.d.5	2.d.6	2.d.7
	√			√			
		√					
			√				√
			√				
				√			
					√		
						√	
							√

MD ophthalmology update 2014-2015

ملحق (5) مصفوفة المعارف والمهارات للبرنامج الدراسي

Knowledge & Understanding المعارف																		ILOs	
2.a.18	2.a.17	2.a.16	2.a.15	2.a.14	2.a.13	2.a.12	2.a.11	2.a.10	2.a.9	2.a.8	2.a.7	2.a.6	2.a.5	2.a.4	2.a.3	2.a.2	2.a.1		
		√				√									√	√	√	Courses OP TH 701 • Anatomy OP TH 703 • Physiology OP TH 704 • Pathology OP TH 705 to 703 • Optics OP TH 705 to 701 • Ophthalmic medicine OP TH 705 to 720 • Ophthalmic surgery	
			√						√				√		√				
					√			√							√				
			√	√						√				√					
√	√		√	√		√	√	√		√		√				√	√		
√	√	√		√	√		√		√		√		√	√		√	√		
√	√	√		√	√		√		√		√		√	√		√	√		

MD ophthalmology update 2014-2015

Intellectual Skills مهارات ذهنية									ILOs	
									Courses & codes	
									Courses	
2.b.9	2.b.8	2.b.7	2.b.6	2.b.5	2.b.4	2.b.3	2.b.2	2.b.1		
√		√				√	√		OPTH 701	Anatomy •
	√		√				√		OPTH 702	Physiology •
			√			√	√		OPTH 704	Pathology •
√				√					OPTH 703	Optics •
√	√	√	√	√	√	√	√	√	OPTH 706	Ophthalmic medicine •
√	√		√	√	√	√	√	√	OPTH 707	Ophthalmic surgery •

Practical & Clinical Skills مهارات عملية و مهنية						ILOs				
						Courses & codes				
				2.c.5	2.c.4	2.c.3	2.c.2	2.c.1		
							√		OPTH 701	Anatomy •
				√			√		OPTH 702	Physiology •
						√			OPTH 704	Pathology •
								√	OPTH 703	Optics •
				√	√		√		OPTH 706	Ophthalmic medicine •
				√	√	√		√	OPTH 707	Ophthalmic surgery •

MD ophthalmology update 2014-2015

General and transferable مهارات عامة								ILOs	
	2.d.7	2.d.6	2.d.5	2.d.4	2.d.3	2.d.2	2.d.1	Courses & codes	
	√	√		√	√			OPTH 701	Anatomy •
			√			√	√	OPTH 702	Physiology •
	√	√	√					OPTH 704	Pathology •
				√		√	√	OPTH 703	Optics •
		√		√	√			OPTH 706	Ophthalmic medicine •
			√	√				OPTH 707	Ophthalmic surgery •

رئيس القسم
التوقيع :
أ.د. عصام المتبولي

أستاذ المادة
التوقيع :

We certify that all information required to deliver this program is contained in the above specification and will be implemented. All course specification for this program are in place.

Program coordinator:

Name:

Prof. Dr. Essam Elmatbouly,
prof. of ophthalmology

Signature & date:

Head of department:

Name:

Prof. Dr. Essam Elmatbouly
Professor & Head of Ophthalmology
department

Signature & date:

Dean:

Name:

Signature & date:

Executive director of the quality assurance unit:

Name:

Signature & date:

MD ophthalmology update 2014-2015

ملحق رقم ٦

توصيف المقررات

Program courses

First part	Code
1- Anatomy & Embryology	OPHT 701
2- Physiology	OPHT 702
3- Optics	OPHT 703
4- Pathology & bacteriology	OPHT 704
Second part	
1-Ophthalmology I	OPHT 705 to 720
2- Ophthalmology II	OPHT 705 to 720

MD ophthalmology update 2014-2015



Benha University
Faculty of Medicine
Department of Ophthalmology.

Course Specification

Course title: Anatomy and Embryology

(Code) OPTH 701

Academic Year (2013 – 2014)

- **Department offering the course:** Ophthalmology department
- **Academic year of M.D program:** Level: 1st part
- **Date of specification approval:**
 - **Department council date:** 1/9/2013
 - **Faculty council no . 356., date** 15/9/2013

A) Basic Information:

- **Allocated marks:** 100 marks
- **Course duration:** 15 weeks of teaching
- **Teaching hours:** 1.5 hours/week = 37.5 total teaching hours

MD ophthalmology update 2014-2015

- **Theoretical: 1 credit hour (15 total hours)**
- **Practical: 0.5 credit hour (22.5 total hours)**

B) Professional Information:

1- Overall Aim of the Course:

1-1 Successful candidates will demonstrate to the examiners that they have a detailed and comprehensive knowledge of anatomy of relevance to the practice of ophthalmology - in particular the eye, the visual pathways, the orbit and its contents including peri-orbital structures.

1-2 They are also expected to have an understanding of the embryology, maturation and normal ageing changes of the human eye.

1-3 They should also be familiar with the anatomy of the head and neck including neuroanatomy, histology and the use of diagnostic imaging as it pertains to the visual system

.

2- Intended Learning Outcomes (ILOs):

2.a. Knowledge and understanding:

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

2.a.1 Describe the normal anatomical organization of the human eye, orbit and its contents and head and neck in terms of cells, tissues, organs and systems

2.a.2 Describe the principal components of the human visual system and their function in detail

2.a.3 Describe how diagnostic imaging may be used in ophthalmic practice

MD ophthalmology update 2014-2015

2.b. Intellectual Skills:

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

2.b.1 integrate clinical findings in ophthalmic diagnosis .

2 b.2 formulate proper plans of treatment.

2 b 3 Link between given data and problem solving.

2.b.4 Demonstrate competence in data presentation , statistical analysis & interpretation

.

2.c Practical and professional Skills

By the end of the study of master program in ophthalmology the Graduate

should be able to:

2.c 1-interpret function of optical system

2.c 2-interpret the relation between the eye and surrounding structures like cranium ,sinuses and nasal cavities.

2.c3-Master the basic and modern anatomical skills to help in clinical and surgical Skills in future practice.

2.d . Communication skills & transferable Skills:

By the end of the program the graduate will be able to:

2 d 1Work effectively both individually and in team work .

2d 2 Make effective use of information technology eg, Internet

2.d.3 Demonsrate self-direction & some originality in taking and solving problem

MD ophthalmology update 2014-2015

3- Course contents:

Subject	Lectures (hrs)	Hands-on related to surgery	Total (hrs)	% of Total
1- Anatomy of the orbit	1	1.5	2.5	6.67
2- extra-ocular muscle, and periorbita	1	1.5	2.5	6.67
3- Eye lid(blood and nerve supply)	1	1.5	2.5	6.67
4- Sclera and episclera	1	0.5	1.5	5
5- Anatomy,histology and embryology of the Conjunctiva	0.5	1	1.5	5
6- Limbus, anterior chamber, angle and posterior chamber	1	0.5	1.5	5

MD ophthalmology update 2014-2015

7- Anatomy and embryology of Uvea(blood and nerve supply)	1	2	3	7.5
8- Anatomy ,histology and embryology of cornea	1.5	2.5	4	10.83
9- Anatomy,histology and embryology of lens	1.5	2.5	4	10.83
10- Anatomy ,histology and embryology of retina and vitreous	1	2.5	3.5	10
11- Blood supply of the eye and its adnexa	0.5	1.5	2	5.83
12- Anatomy,histology and embryology of the lacrimal system	0.5	1.5	2.5	4.17

MD ophthalmology update 2014-2015

13- Visual pathway, optic nerve, optic chiasm and relations, optic tract, striate, cortex	1	1.5	2.5	6.67
14- Neuro-anatomy {occulomotor neves (3 th , 4 th , 6 th), 5 th , 7 th nerve and autonomic nerve supply of the eye}	1	2	5	8.33
Total	15	22.5	37.5	100

4- Teaching and learning methods:

METHODS USED:

1. Modified Lectures
2. Small group discussions
3. Problem solving.

TEACHING PLAN:

Lectures: Division of students into 6 groups

1 hour /week, Time from 9.0am to 10.00 am.

MD ophthalmology update 2014-2015

Tutorials: 1 hour /week, Time from 10.0am to 11.30 am

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	<u>1</u> hour/week; 1 hour	15 hours	40%
Tutorial	<u>1</u> hour/week; 0.5 hour	22.5 hours	60%
Total		37.5 hours	100%

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA:

The minimum acceptable attendance is 75%, Students who fail to meet their attendance requirements are not allowed to sit for their exams.

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding, intellectual skills
Oral examination	To assess knowledge & understanding, skills of analysis and discussion
Log book	To assess practical & transferrable skills, attendance of different conferences, thesis discussions, seminars, workshops, attendance of

MD ophthalmology update 2014-2015

	scientific lectures.
Seminars	To assess knowledge&skills of analysis and discussion, the candidate should prepare and present at least one seminar in a topic related to the course and determined by the supervisors in front of the department staff.

5-C) TIME SCHEDULE: Faculty bylaws

Exam	Week
1- MCQ & Problem solving exams.	Every 4 wks during the course
2- final exam: a-written b-oral	End of the week number 24

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
1- Final exam:		
a- Written	60	60%
b- Oral	40	40%
Total	100	100%

- **Other assessment without marks: practical tests and exams, seminars and log book assessment are requirement of the 2nd part exam.**

MD ophthalmology update 2014-2015

- The minimum passing & Passing grades (Faculty bylaws).

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinations description:

Examination	Description
1- Final exam: a- Written b- Practical c- Oral	(Short essay) questions, case study, problem solving Slides
2- Assignments & other activities	practical books
Total	

6- List of references:

6.1- Essential Books (Text Books)

**A. K. Khurana, Indu Khurana Anatomy & Physiology of Eye, 2nd Ed. New delhi (india)
2008**

6.2- Recommended Books

**Richard S. Snell , Michael A. Lemp Clinical Anatomy of the Eye 2nd Ed. Blackwell science
1998**

6.3- Periodicals

British journal of anatomy

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

MD ophthalmology update 2014-2015

6.4-Additional texts:

M Hogan J Alvarado, J Wedell WB Saunders Histology of the Human Eye, Philadelphia, 1971 (Photocopies of this text are kept by past Part 1 holders)

J Forrester et al The Eye Basic Sciences in Practice (Chapters 1 and 2)Saunders Company Ltd London 1996.

ML Barr and JA Kiernan The Human Nervous System, An Anatomical Viewpoint (5th Ed) Harper and Row, Philadelphia 1988

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- **Lecture halls:**
- **Small group classes**
- **Laboratory**
- **Information technology / AV aids**
- **Models etc**

Course coordinator:

Dr. Khalid gamil

Professor of Ophthalmology

Banha University

Head of Department:

Dr.Essam Elmatbouly

Professor of Ophthalmology

Banha University

MD ophthalmology update 2014-2015

Date: 2013-2014



Benha University
Faculty of Medicine
Department of Ophthalmology.

Course Specification

Course title: Physiology_

(Code) OPHT 702

Academic Year (2013-2014)

- **Department offering the course:** Ophthalmology department
- **M.D degree program:** Level: 1st part
- **Date of specification approval:**
 - Department council, date: 1/9/2013
 - Faculty council no 356 , date : 15/9/2013

A) Basic Information:

- **Allocated marks:** 100 marks
- **Course duration:** 15 weeks of teaching
- **Teaching hours:** 1.5 hours/week= 37.5 total teaching hours

MD ophthalmology update 2014-2015

- **Theoretical: 1 credit hour (15 total hours)**
- **Practical: 0.5 credit hour (22.5 total hours)**

B) Professional Information:

1- Overall Aim of the Course:

1. to prepare an **ophthalmology** physician oriented with the

Physiology of the eye & vision

2- Intended Learning Outcomes (ILOs):

2.a. Knowledge and understanding:

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

2 a 1 Mention the function and mechanisms of protection & physiology of the eye

2 a 2 know the changes of aqueous humor , intraocular pressure & recognize updated data and researches concerned the eye adnexa and nervous system .

2 a 3 understand the physiology of binocular vision and its advantages in addition to the visual pathway & field of vision.

2.b. Intellectual Skills:

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

2. b 1 To interpret the physiological function of the eye with changes which happen in diseases.

2 b 2 To know the ocular circulation and its relation to the general circulation of the body.

2 b 3 Link between given data and problem solving.

2.b.4 Demonstrate competence in data presentation , statistical analysis & interpretation .

2.c Practical and professional Skills

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

2.c.1 know the normal physiology of ocular tissues as an organ concerned with vision.

2.c.2 know how the adnexae protect the eye.

2.c.3 Assess methods and tools existing in the area of ophthalmology as visual field ,ocular motility,retinal functions and electrophysiology.

2.d. Communication skills & transferable Skills:

MD ophthalmology update 2014-2015

By the end of the program the graduate will be able to:

2d1 Work effectively both individually and in team work .

2d2 Make effective use of information technology eg, Internet

2d3 Demonsrate self-direction & some originality in taking and solving problem

3- Course contents:

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Total teaching (hrs)	% of Total
aqueous humor & intraocular pressure	0.5	1.5	2	5.83
protective mechanisms of the eye	0.25	0.25	0.5	1.5
accommodation of the eye	0.25	0.5	0.75	2.1
Normal & abnormal refraction of the Eye	0.25	0.5	0.75	2.1
pupillary reflexes	0.5	0.5	1	2.4
photoreceptors & mechanism of its excitation	0.25	0.5	0.75	2.1
light & dark adaptation	0.25	0.5	0.75	2.1
color vision	0.5	0.75	1.25	3
visual pathway & field of vision	0.5	0.75	1.25	3
Binocular muscular coordination	0.5	0.75	1.25	3
visual acuity & factors affecting it	0.75	1	1.75	4.8
binocular vision and its advantages & requirements	0.5	0.75	1.25	3
eye movement & its higher control	0.5	0.75	1.75	4.8

MD ophthalmology update 2014-2015

Total	15	22.5	37.5	100
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4- Teaching and learning methods:

METHODS USED:

4. Modified Lectures
5. Small group discussions
6. Problem solving.

TEACHING PLAN:

Lectures: Division of students into 1 group

1 hour /week, Time from 9.0am to 10.0 am .

Tutorials: 1 hour /week, Time from 11.0am to 12:30 pm

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	<u>1</u> hour/week; 1 hour	15	40%
Tutorial	<u>0.5</u> hour/week; 1 1/2 hour	22.5	60%
Total		37.5	100%

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA:

The minimum acceptable attendance is 75%, Students who fail to meet their attendance requirements are not allowed to sit for their exams.

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding, intellectual skills
Oral examination	To assess knowledge & understanding, skills of analysis

MD ophthalmology update 2014-2015

	and discussion
Practical examination	To assess descriptive & diagnostic abilities and theory application (intellectual skills) and professional / practical skills & general and transferable skills

5-C) TIME SCHEDULE: Faculty bylaws

- Two sets of exams : 1st in April – 2nd in October.

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
1- Final exam:		
a- Written	60	60%
b- Oral	40	40%
Total	100	100%

- The minimum passing & Passing grades (Faculty bylaws).

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinations description:

Examination	Description
1- Final exam:	
a- Written	(Short essay) questions, case study, problem solving
b- Oral	
2- Assignments & other activities	practical books
Total	

6- List of references:

6.1 Course notes: lecture notes prepared by the staff members of the department

6.2- Essential Books (Text Books) : Francis Heed Adler , Robert A. Moses

Adler's Physiology of the eye: clinical application 2nd Ed, Mosby 2003

6.3- Recommended Books:

A. K. Khurana, Indu Khurana Anatomy & Physiology of Eye, 2nd Ed. New delhi (india) 2008

6.4: Periodicals, and Web Sites:

American journal of physiology

MD ophthalmology update 2014-2015

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls:
- Small group classes
- Laboratory
- Information technology / AV aids
- Models etc

Course Coordinators: ▪

Dr. Ayman Nasar ▪

Professor of Ophthalmology ▪

Banha University ▪

Head of Department:

Dr.Essam Elmatbouly

Professor of Ophthalmology

Banha University

Date: 2013-2014



*Benna University
Faculty of Medicine
Department of Ophthalmology.*



Course Specification

Course title: : Pathology and Bacteriology

(Code) OPTH 704

Academic Year (2013-2014)

- **Department offering the course:** Ophthalmology department
- **MD degree of Ophthalmology:** Level: 1st part
- **Date of specification approval:**
 - Department council, date: 1/9/2013
 - Faculty council no 356 , date : 15/9/2013

A) Basic Information:

- **Allocated marks:** 100 marks
- **Course duration:** 15 weeks of teaching
- **Teaching hours:** 1.5 hours/week = 37.5 teaching hours
 - **Theoretical: 1 credit hour (total 15 hours)**
 - **Practical: 0.5 credit hour (total 22.5 hours)**

MD ophthalmology update 2014-2015

B) Professional Information:

1- Overall Aim of the Course:

- 1.1- To educate students the basic features of Ocular Microbiology :bacteriology, virology, mycology and parasitolog
- 1.2- To familiarize students with the common ocular infections, their microbial causes, as well as laboratory diagnosis.
- 1.3- To familiarize students with the pathologic bases of diseases which affect the eye and ocular adnexae.
- 1.4- To promote lifelong competencies necessary for continuous professional development .

2- Intended Learning Outcomes (ILOs):

2.a. Knowledge and understanding:

2.a 1-Ocular Microbiology:

- 2.a .1.1-Understand pathogenicity of microorganisms of ocular importance.
- 2.a.1..2- Describe the morphology, culture and virulence factors of microorganisms of ocular importance.

2.a.2- Ocular Pathology:

- 2.a.2.1- Define and discuss the main disease categories that may affect the eye and ocular adnexae as well as the basic mechanisms underlying these disorders (etiology, pathogenesis & natural history) .
- 2.a.2.2- Describe the morphologic (gross & microscopic) changes occurring as a result of such disease processes in the eye and ocular adnexae.
- 2.a.2.3- Determine the fate & complications of each particular disease

2.c. Intellectual Skills:

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

- 2.b.1To integrate clinical findings in ophthalmic diagnosis .

MD ophthalmology update 2014-2015

2.b.2 To formulate proper plans of treatment.

2.b.3 Link between given data and problem solving.

2.b.4 Demonstrate competence in data presentation , statistical analysis & interpretation .

2.c. Practical and professional Skills

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

2.c.1-know the gross lesion of different structures of the eye ball and its adnexa.

2.c.2-document the clinical picture with the pathological findings of specimen to reach the proper diagnosis.

2.c.3-differentiate the pathological lesions into inflammatory ,degenerative or malignant

2.c.4-Assess data show slides covering Ocular microbiology and pathology (General & Systemic)

2.d. Communication skills & transferable Skills:

By the end of the program the graduate will be able to:

2.d.1 Work effectively both individually and in team work .

2.d.2 Make effective use of information technology eg, Internet

2.d.3 Demonstrate self-direction & some originality in taking and solving problem

3- Course contents:

3-A Topics: covered in lectures

I) Ocular Microbiology

- Ocular Bacteriology
 - Introduction to bacteriology
 - Bacteria of ocular importance
 - Staphylococci

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- Streptococcus pyogenes & streptococcus pneumonia
- Neisseria
- Corynebacterium diphtheria & diphtheroids
- Actinomyces & nocardia
- Pseudomonas aeruginosa & hemophilus
- Moraxella
- Enterobacteriaceae (Proteus, Klebsiella, Escherichia)
- Mycobacterium T.B & treponema palidum
- Chlamydia
- Ocular virology:
 - Introduction to virology
 - Viruses of ocular importance:
 - Herpes simplex & H. zoster
 - Adenovirus
 - Molluscum contagiosum
 - HIV & CMV
- Ocular mycology:
 - Introduction to mycology
 - Fungi of ocular importance:
 - Candida albicans
 - Fusarium sp.

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- Aspergillus sp.
- Ocular parasites:
 - Parasites of ocular importance:
 - Protozoa: acanthamoeba, toxoplasma gondii
 - Helminthes: toxocara canis, onchocerciasis (river blindness)
 - Ocular myiasis

II. Ocular pathology

A) General pathology:

1. Introduction, cell injury, accumulations & depositions
 - Cell response to injury: degenerative changes, necrosis & apoptosis
 - Accumulations, depositions, abnormal calcifications & pigmentations
 - Diseases of ageing
2. Inflammation & repair:
 - Acute inflammation and Chronic inflammation
 - Repair: regeneration – organization & healing in special conditions
3. Growth disturbances & neoplasia:
 - Hyperplasia – metaplasia – dysplasia – hypertrophy – atrophy – hamartoma
 - Benign and Malignant tumors

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4. Ocular immunology: Immunity & hypersensitivity Autoimmunity
Immunodeficiency

B- Systemic / special pathology:

All diseases in each adnexal or ocular structure are studied covering:

- a) Definition, incidence of disease and its epidemiology
- b) Etiology and pathogenesis
- c) Morphologic aspects: gross & microscopic changes
- d) Fate & complications
- e) Others (clinical presentation, differential diagnosis, prognosis etc...)

Studied adnexal or ocular structures include the following:

1. Eyelid & conjunctiva
2. Lacrimal system & orbit
3. Cornea & sclera
4. Uvea
5. Intraocular tumors
6. Cataract
7. Glaucoma
8. Retina & vitreous
9. Optic nerve
10. Wound healing and ocular trauma

MD ophthalmology update 2014-2015

11. Congenital & hereditary ophthalmic disorders & phakomatosis

Subject	Total (hrs)	Lectures (hrs)	Practical (hrs)	% of Total
I- Ocular Microbiology				
Ocular Bacteriology	3.75	1.25	2.5	10%
Ocular Virology	1.25	0.5	0.75	3.33%
Ocular Mycology	1.25	0.5	0.75	3.33%
Ocular Parasites	1.25	0.5	0.75	3.33%
total	7.5	2.75	4.75	20%
II. Ocular Pathology				
General Pathology	3.75	1.5.	2.25	10%
1. Introduction, Cell injury, Accumulations & depositions	0.5	0.25	0.25	1.66%
2. Inflammation & Repair	1.25	0.5	0.75	3.33%
3. Growth Disturbances & Neoplasia	1.25	0.5	0.75	3.33%
4. Ocular Immunology	0.75	0.25	0.5	1.66%
Special Pathology	26.25	10.5	15.75	70 %
1. Eye lid & Conjunctiva	4.25	2	2.25	11.6 %
2. Lacrimal system & Orbit	1.75	0.75	1	5%
3. Cornea and sclera	1.75	0.75	1	5%

MD ophthalmology update 2014-2015

4.Uvea	1.5	0.5	1	4.2%
5. Intraocular tumors	5.5	2.5	3	15%
6. Cataract	1.5	0.5	1	4.2%
7. Glaucoma	1.5	0.5	1	4.2%
8. Retina and vitreous	3.25	1.75	1.5	8.4%
9. Optic nerve	1.5	0.5	1	4.2%
10. Wound healing and Ocular trauma	1.5	0.5	1	4.2%
11.Oph.gentic dis.& Phakomatosis	1.5	0.5	1	4.2%
Total	37.5	15	22.5	100%

4- Teaching and learning methods:

METHODS USED:

- | |
|--|
| 7. Modified Lectures |
| 8. Small group discussions |
| 9. Problem solving. |
| 10. Data show slides: Microbiology and Pathology of the eye. |

TEACHING PLAN:

Lectures: 1 hour /week, Time from 9.0 AM to 10.0 AM .

Practical classes: 1 hour /week, Time from 10:30 AM to 12.00 PM

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	<u>1</u> hour /week ;each 1 hour	15	40%
Practical/Tutorial	<u>1</u> hour /week;each 1.5 hr	22.5	60%

MD ophthalmology update 2014-2015

Total		37.5	100%
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5- Students Assessment methods:

5-A) Attendance Criteria:

The minimum acceptable attendance is 75%, Students who fail to meet their attendance requirements are not allowed to sit for their exams.

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding, intellectual skills
Oral examination	To assess knowledge & understanding, skills of analysis and discussion
Practical examination	To assess descriptive & diagnostic abilities and theory application (intellectual skills) and professional / practical skills & general and transferable skills

5-C) TIME SCHEDULE: Faculty by laws

Exam	Week
Final exam a- Written b- Practical c- Oral	15

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
Final exam: a- Written b- Practical c- Oral	50 20 30	50% 20% 30%
Total	100	100%

- The minimum passing & Passing grades (Faculty bylaws).

MD ophthalmology update 2014-2015

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinations description:

Examination	Description
1- Final exam: a- Written b- Practical c- Oral	(Short essay) questions, case study, problem solving Slides
2- Assignments & other activities	practical books
Total	

6- List of references:

I. Ocular Microbiology

1. Ocular therapeutics hand book. A clinical manual. By Bruce E. et al (Ch.1:ocular microbiology & Ch.3: ophthalmologic Lab & diagnostic tests). 2nd edition, 2005, Lippincott Williams & Wilkins.
2. Ocular Infection By Seal D. et al. 2nd edition, 2007, Informa Health Care USA.

II. Ocular Pathology

1. Ocular Pathology Text book. Ed. Yanoff M.
2. Ophthalmic Pathology: An Atlas, Textbook. Ed. Spencer W H
3. Basic and Clinical science Course-American Academy of Ophthalmology-Section 4
4. Ophthalmic Pathology – An illustrated guide for Clinicians. Ed. Sehu KW and Lee WR. Blackwell Publishing.
5. Principles and Practice of Ophthalmology. Ed. Albert DM. Jakobiec FA, Vol.4

❖ Related web sites

- <http://eyepathologist.com>
- <http://www.ouhsc.edu/ocupath/main.html>
- <http://pathmicro.med.sc.edu/book/welcome.htm>

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls:

MD ophthalmology update 2014-2015

- Small group classes
- Laboratory
- Information technology / AV aids
- Models etc

Course Coordinators:

Dr. Tarek Mohammad Zaghloul

Professor of Ophthalmology
Banha University

▪

Head of Department:

Dr.Essam Elmatbouly

Professor of Ophthalmology
Banha University

Date: 2013-2014

MD ophthalmology update 2014-2015



Benha University

Faculty of Medicine

Department of Ophthalmology.

Course Specification

Course title: Optics

(Code) OPTH 703

Academic Year (2013 – 2014)

- **Department offering the course:** Ophthalmology department
- **Academic year of M.D. program:** Level: 1st part
- **Date of specification approval:**

-Department council, date: 1/9/2013

- Faculty council no 356 , date : 15/9/2013

A) Basic Information:

- **Allocated marks:** 100 marks
- **Course duration:** 15 weeks of teaching
- **Teaching hours:** 1.5 hours/week = 37.5 total teaching hours
 - **Theoretical:** 1 credit hour (15 total hours)
 - **Practical:** 0.5 credit hour (22.5 total hours)

MD ophthalmology update 2014-2015

B) Professional Information:

1- Overall Aim of the Course:

The broad aim of the course is to educate students about Optics of the Eye also to provide the students with updated data and researches concerned the eye, including the application of physical, geometric and physiological optics to clinical management and an appreciation of the principles of instrumentation and clinical practice in these areas.

2- Intended Learning Outcomes (ILOs):

2.a. Knowledge and understanding:

By the end of the study the Graduate should be able to:

2.a.1- Describe the physical properties of light and lasers

2.a.2- Describe the geometrical principles of light and the laws governing lights interaction with materials.

2.a.3-Describe the physiological optics of the human eye and optical instruments and how to test this.

2.b Intellectual Skills:

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

2 .b.1To integrate clinical findings in ophthalmic diagnosis .

2.b.2To formulate proper plans of treatment.

2.b.3Link between given data and problem solving.

2.b.4 Demonstrate competence in data presentation , statistical analysis & interpretation

MD ophthalmology update 2014-2015

2.c. Practical and professional Skills

By the end of the study the Graduate should be able to:

2.c.1-Master of the basic and modern professional clinical skills in the area of optics and refraction.

2.c.2-Assess methods and tools existing in the area of ophthalmology.

2.d. Communication skills & transferable Skills:

By the end of the program the graduate will be able to:

2.d.1 Work effectively both individually and in team work .

2.d.2 Make effective use of information technology eg, Internet

2.d.3 Demonstrate self-direction & some originality in taking and solving problem

3- Course contents:

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Total (hrs)	% of Total
Properties of light		0.5	0.5	1.39%
Reflection of light		0.5	0.5	1.39
Refraction of light		0.5	0.5	1.39%
Prisms	0.5	0.5	1	2.78%
Refraction by lenses	0.5	0.5	1	2.78%

MD ophthalmology update 2014-2015

Refraction of the eye	0.5	0.5	1	2.78%
Aberrations	0.5	0.5	1	2.78%
Ametropia	0.5	1.5	2	5.56%
Accommodation	0.5	0.5	1	2.78%
Binocular muscular coordination	0.25	0.75	1	2.78%
Retinoscopy	0.5	1.5	2	5.56%
Ophthalmoscopy	0.5	1.5	2	5.56%
Verification of refraction	1	1.5	2.5	6.94%
Spectacles	1	1.5	2.5	6.94%
Contact lenses	1	1.5	2.5	6.94%
Intraocular lenses	1	1.5	2.5	6.94%
Low vision aids	0.5	1	1.5	4.17%
Ophthalmoptic instruments: Microscopy , operating microscope , Slit Lamp , Fundus Camera Refractometers , Keratometers ,	4	7.5	11.5	30.56%

MD ophthalmology update 2014-2015

Orthoptic, and laser				
Total	15	22.5	37.5	100%

4- Teaching and learning methods:

METHODS USED:

1. Lectures
2. Small group discussions
3. Workshops
4. Practical classes: Data show slides: optics of the eye.
5. Seminars
6. Tutorial

TEACHING PLAN:

Lectures: Division of students into 2 groups

1 HOUR /week, Time from 9.0am to 10.0 am .

Tutorials: 2 HOUR /week, Time from 10.0am to 10:45 am

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	<u>1 HOUR</u> /week;	15	40%
Tutorial	<u>2 hour</u> / week; each ¾ hr	22.5	60%

MD ophthalmology update 2014-2015

Total		37.5	100%
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5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA:

The minimum acceptable attendance is 75%, Students who fail to meet their attendance requirements are not allowed to sit for their exams.

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding, intellectual skills
Oral examination	To assess knowledge & understanding, skills of analysis and discussion
Practical examination	To assess descriptive & diagnostic abilities and theory application (intellectual skills) and professional / practical skills & general and transferable skills

5-C) TIME SCHEDULE: Faculty bylaws

Exam	Week
4- Practical exam	24
5- Final exam	24

MD ophthalmology update 2014-2015

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
1- Final exam:		
a- Written	50	50%
b- Practical	25	25%
c- Oral	25	25%
Total	100	100%

- **The minimum passing & Passing grades (Faculty bylaws).**

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinassions description:

Examination	Description
1- Final exam:	
a- Written	(Short essay) questions, case study, problem solving
b- Practical	
c- Oral	
2- Assignments & other activities	practical books
Total	

MD ophthalmology update 2014-2015

6- List of references:

6.1- Essential Books (Text Books)

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, 2009

6.3- Recommended Books

Clinical Optics AR Elkington and HJ Frank, Blackwell Science, 3rd Ed, 2000

Optics, Refraction and Contact Lenses, Basic and Clinical Science Course, American Academy Ophthalmology, 2003

Optics MH Freeman, Butterworths-Heinemann Medical; 10th Ed, 1990

Optics for Clinicians M Rubin, Triad Publishing, 3rd Ed, 1993

6.4: Periodicals, and Web Sites:

American journal of optics and refraction

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- **Lecture halls: available in the department**
- **Small group classes**
- **Information technology / audio visual aids**
- **Models etc**

MD ophthalmology update 2014-2015

Course Coordinators:

Dr. Essam El Matbouly

Professor of Ophthalmology

Banha University

Head of Department:

Dr. Essam El matbouly

Professor of Ophthalmology

Banha University

Date: 2013-2014

MD ophthalmology update 2014-2015



*Benha University
Faculty of Medicine
Department of Ophthalmology.*

Course Specification

Course title: Medical Ophthalmology

(Code) OPHT 706

Academic Year (2013-2014)

- **Department offering the course:** Ophthalmology department
- **MD degree program:** Level: 2nd part
- **Date of specification approval:**

-Department council, date: 1/9/2013

- Faculty council no 356 , date : 15/9/2013

A) Basic Information:

- **Allocated marks:** 300 marks
- **Course duration:** 45 weeks of teaching
- **Teaching hours:** 12 hours/week = 810 total teaching hours
 - **Theoretical: 9 credit hour (405 total hours)**
 - **Practical: 3 credit hour (405 total hours)**

MD ophthalmology update 2014-2015

B) Professional Information:

1- Overall Aim of the Course:

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

- 1.1- Deal with common ophthalmological conditions on the basis of adequate history taking, physical examination interpretation of relevant supportive investigations and Management.
- 1.2- Deal with ocular emergencies.
- 1.3- Perceive and integrate progress in ophthalmological technology.

2- Intended Learning Outcomes (ILOs):

2.a. Knowledge and understanding:

- 2.a.1 Demonstrate in depth knowledge and understanding of theories, basics and updated biomedical, clinical and socio-behavioral science relevant to his specialty as well as the evidence based application of this knowledge to patient care.
- 2.a.2 Know in depth the fundamentals of ophthalmic diseases
- 2.a.3 Know the ethics of scientific research
- 2.a.4 Mention the basis of high quality assurance and quality improvement in ophthalmology
- 2.a.5 Understand in detail investigations to be ordered to help reaching diagnosis (lab, ophthalmic investigations).
- 2.a.6 Describe the various therapeutic methods and other alternative use.
- 2.a.7 Know the principles and fundamentals of prevention control and avoiding further complications
- 2.a.8 Know the principles , basics and ethics of scientific research .

2.b. Intellectual Skills:

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

- 2.b.1 To integrate clinical findings in ophthalmic diagnosis .
- 2.b.2 To formulate proper plans of treatment.
- 2.b. 3 Link between given data and problem solving.
- 2.b.4 Demonstrate competence in data presentation , statistical analysis & interpretation .

MD ophthalmology update 2014-2015

2.c. Practical and professional Skills

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

- 2.c.1 Gaining clinical skills in writing full sheet for patient and how to interpret data to reach diagnosis.
- 2.c.2 Use of direct and indirect ophthalmoscope and interpretation of fundus picture .
- 2.c.3 Interpretation of clinical findings with the history of the patient illness.
- 2.c.4 To differentiate between ophthalmological symptoms and other medical diseases .
- 2.c.5 Ask for further investigations and laboratory test to help in reaching the proper diagnosis.
- 2.c.6 Know the differential diagnosis of such illnesses .
- 2.c.7 To establish a definitive clinical diagnosis and initiating appropriate treatment.
- 2.c.8 Mastering the use of different diagnostic tools used in ophthalmology (Flurosece in angiography , A & B-scan US & OCT)
- 2.c.9 Sorting out ocular diseases early in the course of the evaluation of importance for avoiding unnecessarily and often expensive investigations.
- 2.c.10 Interpretation of clinical findings and results of photostress test, color vision, field chart, flurosece angiography, UBM , OCT , ORA , corneal topography & electrical physiology)

2.d. Communication skills & transferable Skills:

By the end of the program the graduate will be able to:

- 2.d.1 Work effectively both individually and in team work .
- 2.d.2 Make effective use of information technology eg, Internet
- 2.d.3 Demonstrate self-direction & some originality in taking and solving problem

3- Course contents:

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Practical (hrs)	Total (hrs)	% of Total
Introduction: Ocular Symptoms and Signs	14	7	7	28	3.47%
Diseases of the eye lids: blepharitis,	26	13	13	52	6.6%

MD ophthalmology update 2014-2015

allergy, lid retraction, madarosis, blepharospasm, infections					
Disease of the Cornea: Keratitis (Bacterial, Viral, Mycotic), pigmentation, precipitates, peripheral corneal disorders, degenerations, dystrophies, ectasia	30	14	14	58	7.18%
Diseases of the conjunctiva: conjunctivitis (Bacterial, Viral, Chlamydial, Allergic) Mucocutaneous disorders, dry eye	22	10	10	42	5.21%
Diseases of the lacrimal apparatus: dacryoadenitis, dacryocystitis, canaliculitis	22	10	10	42	5.21%
Glaucomas: ocular hypertension, primary open angle glaucoma, normotensive glaucoma, primary angle closure glaucoma, secondary open angle glaucoma, secondary angle closure glaucoma, infantile & juvenile glaucoma	39	20	20	79	9.75%

MD ophthalmology update 2014-2015

Diseases of Sclera : Scleritis- Episcleritis	22	11	11	44	5.44%
Disease of Uvea: Uveitis (Infective, Non-infective, Chronic)	24	13	13	50	6.48%
Diseases of Retina : Dystrophies (Receptors, Retinal pigment epithelium & Choroidal (Degenerations Vascular: Retinopathies (Diabetic, Hypertensive, Renal, Toxaemia, Arteriosclerotic), retinal artery occlusion & retinal vein occlusion	39	18	18	75	9.26%
Diseases of optic nerve: Neuropathy, Neuritis, Papilledema, congenital.	32	14	14	60	7.29%
Strabismus: amblyopia, clinical evaluation, horizontal & vertical patterns, alphabet patterns	36	18	18	72	9.03%
Disease of the Orbit: thyroid eye diseases, infections, inflammations	22	11	11	44	5.44%
Diseases of Macula: age related macular degeneration, centrall serous chorio	34	17	17	68	8.45%

MD ophthalmology update 2014-2015

retinopathy, Cystoid macular oedema, Maculopathies.					
Systemic diseases and the eye: Metabolic (Diabetes- Gout)- Hypovitaminosis- Endocrinal (Pituitary- Thyroid- Parathyroid- Thymus)- Blood diseases- Collagen diseases (systemic lupus erythematosus – rheumatic arthritis - Gaint cell arthritis)- Chronic granulomatous diseases (Tuberculosis , syphilis, Leprosy & Sarcoidosis)- Phacomatoses- Musculer diseases.	24	11	11	46	5.67%
Ocular therapeutics	26	12	12	50	6.25%
Total	405	202.5	202.5	810	100%

4- Teaching and learning methods:

METHODS USED:

1. Modified Lectures

2. Small group discussions
3. Problem solving.
4. Practical classes
5. Data show slides

TEACHING PLAN:

MD ophthalmology update 2014-2015

Lectures: Division of students into 2 groups

3 hour /week, Time from 9.0am to 12.00 pm .

Tutorials: 2 hours /week, Time from 12.00 pm to 2:15 pm

Practical classes 2 hours /week, Time from 12.00 pm to 2:15 pm

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	<u>3 hours</u> /week;	405	50%
Practical	<u>2 hours</u> /week	202.5	25%
Tutorial	<u>2 hours</u> /week	202.5	25%
Total		810	100%

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA:

The minimum acceptable attendance is 75%, Students who fail to meet their attendance requirements are not allowed to sit for their exams.

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding, intellectual skills
Oral examination	To assess knowledge & understanding, skills of analysis and discussion
Practical examination	To assess descriptive & diagnostic abilities and theory application (intellectual skills) and professional / practical skills & general and transferable skills

5-C) TIME SCHEDULE: Faculty bylaws

Exam	Week
Final exam	72 weeks after complete passing the 1st part
Practical exam	After finishing the written exam
Thesis	Not less than 24 weeks after complete passing the 2nd part
Assignments & other activities	Conferences, scientific meetings & work shops

MD ophthalmology update 2014-2015

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
1- Final exam:		
a- Written	150	50%
b- Practical	75	25%
c- Oral	75	25%
Total	300	100%

- The minimum passing & Passing grades (Faculty bylaws).

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinations description:

Examination	Description
1- Final exam:	
a- Written	(Short essay) questions, case study, problem solving Slides, case examination, diagnosis, interpretation & investigations
b- Practical	
c- Oral	
2- Assignments & other activities	practical books, conferences
Total	

6- List of references:

6.1- Course Notes

Lecture notes prepared by staff members in the department

6.2- Essential Books (Text Books)

- **Jack J. Kanski, Brad Bowling** Clinical Ophthalmology: A Systematic Approach
Kanski textbook of ophthalmology 7th Ed. Elsevier 2011

- **Myron Yanoff, Jay S. Duker** Ophthalmology: Expert Consult, Yanoff,
Ophthalmology 3rd Ed. Mosby 2008

6.3- Recommended Books:

- **William Tasman, Edward A. Jaeger** Duane's Ophthalmology
Duane's clinical ophthalmology, Wolters Kluwer 2013

MD ophthalmology update 2014-2015

- Bruce E. Onofrey, Leonid Skorin, Jr., Nicky R. Holdeman **Ocular Therapeutics Handbook: A Clinical Manual**, Lippincott Williams & Wilkins, 2005

6.4- periodicals and websites:

- British Journal of ophthalmology bjo.bmj.com
- American journal of ophthalmology www.ajo.com

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls:
- Small group classes
- Laboratory
- Information technology / AV aids
- Models etc

Course Coordinators:

Dr. Ayman Nassar

Professor of Ophthalmology

Banha University

Head of Department:

Dr . Essam Elmatbouly

Professor of Ophthalmology

Banha University

Date: 2013-2014

MD ophthalmology update 2014-2015



Benha University
Faculty of Medicine
Department of Ophthalmology.

Course Specification

Course title: ophthalmic surgery

(Code) OPHT 705 – 714

Academic Year (2013-2014)

- **Department offering the course:** Ophthalmology department
- **M.D degree program:** Level: 2nd part
- **Date of specification approval:**
 - Department council, date: 1/9/2013
 - Faculty council no 356 , date : 15/9/2013

A) Basic Information:

- **Allocated marks:** 300 marks
- **Course duration:** 45 weeks of teaching
- **Teaching hours:** 12 hours/week = 810 total teaching hours
 - **Theoretical: 9 credit hour (405 total hours)**
 - **Practical: 3 credit hour (405 total hours)**

MD ophthalmology update 2014-2015

B) Professional Information:

1- Overall Aim of the Course:

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

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

2- Intended Learning Outcomes (ILOs):

2.a. Knowledge and understanding:

- 2.a.1 Demonstrate in depth knowledge and understanding of theories, basics and updated biomedical, clinical and socio-behavioral science relevant to his specialty as well as the evidence based application of this knowledge to patient care.
- 2.a.2 Know in depth the symptoms of which an ophthalmic patient complain & its analysis
- 2.a.3 Know the signs and manifestations of ophthalmic diseases .
- 2.a.4 Know the ocular manifestations of general medical diseases (D.M, HTN , Thyrotoxicosis)
- 2.a.5 Enumerate concepts in the common diagnostic & laboratory techniques necessary to establish diagnosis of ophthalmic illnesses .
- 2.a.6 know the indications and complications of ophthalmic surgeries.
- 2.a.7 Describe the various therapeutic methods and other alternative use.
- 2.a.8 Know different surgical principles to correct different surgical problems.
- 2.a.9 Know the principles , basics and ethics of scientific research.

2.b. Intellectual Skills:

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

- 2.b.1 To integrate clinical findings in ophthalmic diagnosis .
- 2.b.2 To formulate proper plans of treatment.
- 2.b.3 Link between given data and problem solving.
- 2.b.4 Demonstrate competence in data presentation , statistical analysis & interpretation .

2.c. Practical and professional Skills

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

MD ophthalmology update 2014-2015

- 2.c.1 Use of different primary methods of examination and slit lamp ,staining of the cornea , shirmer's test, IOP measurement, gonioscopy, AC depth measurement.
- 2.c.2 Use of direct and indirect ophthalmoscope and interpretation of fundus picture .
- 2.c.3 Interpretation of clinical findings with the history of the patient illness.
- 2.c.4 To differentiate between ophthalmological symptoms and other medical diseases .
- 2.c.5 Ask for further investigations and laboratory test to help in reaching the proper diagnosis.
- 2.c.6 Know the differential diagnosis of such illnesses .
- 2.c.7 To establish a defentive clinical diagnosis and initiating appropriate treatment.
- 2.c.8 know and practice different techniques in removal of pterygium and chalazion,cataract and glaucoma surgery and retinal detachment correction.
- 2.c.9 know how to deal with traumatic injuries of the eye and orbit.
- 2.c.10 know how to deal with chemical injuries of the eye and adnexa.

2.d. Communication skills & transferable Skills:

By the end of the program the graduate will be able to:

- 2.d. 1 Work effectively both individually and in team work .
- 2.d.2 Make effective use of information technology eg, Internet
- 2.d.3 Demonsrate self-direction & some originality in taking and solving problem

3- Course contents:

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Practical (hrs)	Total teaching (hrs)	% of Total
General principles of ocular Surgery (sutures,needles,instruments)	20	10	10.5	40.5	5.02
Sterilization and Disinfection(methods used & its principle)	30	8	8.25	36.25	4.48
Ocular anesthesia (peribulbar,retrobulbar,etc)	20	7	6.75	33.75	4.17
surgical diseases of eye Lids(Ectropion,entropion,etc)	30	10	16.75	56.75	7.02
Surgical diseases of the Cornea(perforated corneal ulcer,keratoconus,keratoplasty,corneal&anterior segment trauma&conj.flap surgury)	35	17	20	72.5	8.95

MD ophthalmology update 2014-2015

Surgical diseases of the Conjunctiva(symblepharon,pterygium,etc)	30	15.25	16	61.25	7.56
Surgical disease of the lacrimal system (dacryocystitis,lacrimal fistula,dacrocystorhinostomy,etc)	15	10	10	35	4.32
Surgical diseases of the Lens(cataract,aphakia,sub-laxation,IOLs,pediatric cataract surgery,postop.care and phaco complications)	30	20	15	65	8.02
Surgical management of Glaucoma (Penetrating,non penetrating,aqueous tube shunts,coincident cataract&glaucoma surgery,surgical ttt for developmental glaucoma,laser trabecuplasty&PI&cyclophotocoagulation)	50	25	22.5	97.5	12.04
Surgical diseases of the Retina &vitreous : Principals of VRsurgery. Application of intravitreal drugs. Endophthalmitis diagnosis&ttt. AMD&macular hole surgury. PP lensectomy for retained lens material	58	25	25	108	13.35
Refractive surgery : LASIK pt evaluation &selection. Laser technology(Excimer&Femto). Surface ablation :PRK,LASEK,&Epi-LASIK) LASIK for myopia,hyperopia&astigmatism. Phakic IOL. Refractive lens exchang. Intracorneal rings. Biomechanics in refractive surgery.	30	15	15	60	7.41
Strabismus (Esotropia,exotropia,clinical evaluation,management,special syndromes)	30	15.25	16	61.25	7.56
Surgical diseases of the orbit: Surgical approaches to the orbit. Surgical rehabilitation of Graves''Orbetopathy. Enucleation&visceration. Manegment of post-enucleation socket syndrome.	20	8	7.5	35.5	4.4
Surgical management of	18	10	10	38	4.71

MD ophthalmology update 2014-2015

ocular trauma(rupture globe,lid trauma,IOFB etc)					
Total	450	202.5	202.5	810	100

4- Teaching and learning methods:

METHODS USED:

1. Modified Lectures

2. Small group discussions

3. Problem solving.

4. Practical classes

5. Data show slides

TEACHING PLAN:

Lectures: Division of students into 1 group

3 hours /week, Time from 9.0am to 12.00 pm

Tutorials: 1 hours /week, Time from 12 pm to 3.00 pm

Practical classes 2 hours /week, Time from 12pm to 3.00 pm

Time plan:

Item	Time schedule	Teaching hours	Teaching hours
Lectures	<u>3 hours</u> /week;each 3hours	450	50%
Practical	<u>2 hours</u> /week;each 3hours	202.5	33.33%
Tutorial	<u>1 hours</u> /week;each	202.5	16.67%

MD ophthalmology update 2014-2015

	3hour		
Total		810	100%

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA:

The minimum acceptable attendance is 75%, Students who fail to meet their attendance requirements are not allowed to sit for their exams.

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding, intellectual skills
Oral examination	To assess knowledge & understanding, skills of analysis and discussion
Practical examination	To assess descriptive & diagnostic abilities and theory application (intellectual skills) and professional / practical skills & general and transferable skills

5-C) TIME SCHEDULE: Faculty by laws

- Two sets of exams : 1st in April – 2nd in October.

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
1- Final exam:		
a- Written	150	50%
b- Practical	75	25%
c- Oral	75	25%
Total	300	100%

- The minimum passing & Passing grades (Faculty bylaws).

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

MD ophthalmology update 2014-2015

5-E) Examinations description:

Examination	Description
1- Final exam: a- Written b- Practical c- Oral	(Short essay) questions, case study, problem solving Slides, live surgeries
2- Assignments & other activities	practical books
Total	

6- List of references:

6.1- Course Notes

Lecture notes prepared by staff members in the department

6.2- Essential Books (Text Books)

- **Jack J. Kanski, Brad Bowling** Clinical Ophthalmology: A Systematic Approach
Kanski textbook of ophthalmology 7th Ed. Elsevier 2011
- **Myron Yanoff, Jay S. Duker** Ophthalmology: Expert Consult, Yanoff,
Ophthalmology
3rd Ed. Mosby 2008
- **George L. Spaeth** Ophthalmic surgery: principles and practice 3rd Ed. Elsevier
Health Sciences, 2003
- **Norman S. Jaffe, Mark S. Jaffe, Gary F. Jaffe** Cataract Surgery And Its
Complications 6th Ed. Mosby 1997
- Robert L. Stamper, Marc F. Lieberman, Michael V. Drake **Becker-Shaffer's
Diagnosis and Therapy of the Glaucomas** 8th Ed. Elsevier Health Science
- Frederick Hampton Roy, Carlos W. Arzabe, **Master Techniques in Cataract and
Refractive Surgery** Slack Incorporated, 2004

6.3- Recommended Books:

- **William Tasman, Edward A. Jaeger** Duane's Ophthalmology
Duane's clinical ophthalmology, Wolters Kluwer 2013

6.4- periodicals and websites:

- British Journal of ophthalmology bjournal.bmj.com
- American journal of ophthalmology www.ajo.com

MD ophthalmology update 2014-2015

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls:
- Small group classes
- Laboratory
- Information technology / AV aids
- Models etc
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Course Coordinators:

Dr. Yosri fekri

Professor of Ophthalmology
Banha University

Head of Department:

Dr.Essam Elmatbouly

Professor of Ophthalmology
Banha University

Date: 2013-2014

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