



جامعة بنها
كلية الطب البشرى
قسم: الكبد والجهاز الهضمى والأمراض المعدية

توصيف برنامج الدكتوراة (عام 2013 – 2014)

PROGRAM SPECIFICATION

A) Basic information : معلومات أساسية

١ - اسم البرنامج : MD degree of Hepatology, Gastroenterology and Infectious diseases.

٢ - طبيعة البرنامج : (متعدد)

٣- الأقسام المسؤولة عن البرنامج:

Hepatology, Gastroenterology and Infectious diseases department

Bacteriology & Parasitology, Physiology, Pathology, Pharmacology

٤- تاريخ إقرار البرنامج فى مجلس القسم : 2013 / 9 / 3

٥- تاريخ إقرار البرنامج فى مجلس الكلية ٣٥٦ : 2013 / 9 / 15

٦- منسق البرنامج: أ.د/ صبري أنيس عبده

٧- المراجع الداخلى: أ.د/ أشرف خميس نصار أستاذ الكبد والجهاز الهضمى بكلية طب بنها

٨- المراجع الخارجى: أ.د/ زكريا يحيى مهران أستاذ طب المناطق الحارة بكلية طب عين شمس

B) Professional information : معلومات متخصصة

١ - الأهداف العامة للبرنامج :

1- Overall Aims of the Program:

The overall aims of the program are to:



1-1 Have the recent scientific knowledge essential for the MD of Hepatology, Gastroenterology and Infectious diseases (HEGAID) according to the international standards.

1-2 Have the skills necessary for proper diagnosis and management of patients in the field of HEGAID including diagnostic, problem solving and decision making skills.

1-3 Know ethical principles related to medical practice in this specialty .

1-4 Participate actively in community needs assessment and problems identification.

1-5 Be concerned about new and recent guidelines in dealing with different medical problems.

1-6 Behave ethically and honorably in his medical practice.

1-7 Produce graduates well trained in laboratory and research skills.

1-8 Foster the ability to work independently and as part of a group, and to develop presentation skills, both written and oral.

1-9 Capable of performing and/or interpreting all procedures and diagnostic tests routinely done in the evaluation and treatment of gastroenterological patients, trainees have to gain experience under direct supervision.

1-10 An adequate number of routine endoscopic procedures have to be performed in order to reach the minimum standards. Trainees should also be skilled in the principles of caring for, cleaning, handling, and maintaining endoscopic equipment.

1-11 Practice and research conducted by a gastroenterologist must be based on the highest principles of ethics, humaneness, and professionalism.

1-12 The gastroenterologist must be prepared to undertake lifelong learning based on independent and critical thinking, a desire for self-improvement, and motivation for permanent learning.

1-13 Should also feel confident to diagnose and treat the most complicated gastroenterological cases.



1-14 As consultants, gastroenterologists will need the skills necessary to communicate effectively with referring physicians.

٢ - المخرجات التعليمية المستهدفة من البرنامج :

2-Intended Learning Outcomes (ILOS):

٢.أ - المعرفة والفهم :

2.a. Knowledge and Understanding:

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

- 2.a.1. Describe the basic and recent principles in the field of hepatology and gastroenterology and infectious diseases and related fields.
- 2.a.2. Recognize the effect of his clinical practice on environment and principles of environmental development and saving.
- 2.a.3. Know the different scientific techniques and approaches available in gastroenterological and hepatological science.
- 2.a.4. Describe the basics of the structure and function of the GIT and liver in health and disease.
- 2.a.5. Identify infective, inflammatory and immunological mechanisms involved in diseases of the GIT and liver.
- 2.a.6. Know recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of hepatic and GIT diseases.
- 2.a.7. Recognize the indications for, contraindications against and complications of major endoscopic procedures.
- 2.a.8. Identify the principles and fundamentals of ethics and legal aspects of professional practice in the field of HEGAID.
- 2.a.9. Know the principles and fundamentals of quality assurance of professional practice in the field of HEGAID
- 2.a.10. Recognize Principles, methodologies, tools and ethics of scientific research.



٢. ب - القدرات الذهنية :

2.b. Intellectual Skills:-

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

- 2.b.1. Interpret data acquired through history taking to reach a provisional diagnosis for hepatic and GIT problems.
- 2.b.2. Analyze different diagnostic alternatives and select the ones that help reaching a final diagnosis for hepatic and GIT problems.
- 2.b.3. Assess risk in professional practices in the field of HEGAID.
- 2.b.4. Assess the performance in the field of HEGAID and how to improve.
- 2.b.5. behave in accordance with professional principles, such as: altruism, accountability, excellence, duty, service, honor, integrity, and respect for others.
- 2.b.6. integrate knowledge, such as cardiology, critical-care medicine, oncology, surgery, pathology, and radiology, as well as with nurses, pharmacists, social assistants, and psychologists.

٢. ج . مهارات مهنية وعملية :

2.c. Practical & Clinical Skills:-

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

- 2.c.1. Perform the basic and modern professional skills in the area of HEGAID.
- 2.c.2. Write and evaluate medical reports.
- 2.c.3. Recognize and develop methods and tools existing in the area of HEGAID.
- 2.c.4. Perform endoscopic and imaging evaluation of gastrointestinal system.
- 2.c.5. Perform safely some laboratory based experiments.
- 2.c.6. Perform efficiently some Endoscopic skills.
- 2.c.7. Have experience in patient care.



٢.د . مهارات عامة :

2.d. General and transferable skills:-

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

- 2.d.1. Communicate clearly, sensitively and effectively.
- 2.d.2. Use scientific technology.
- 2.d.3. Use available resources to get data and knowledge.
- 2.d.4. manage time.
- 2.d.5. present data by oral presentations and written reports.
- 2.d.6. Work independently and as part of a team.
- 2.d.7. Integrate and evaluate information from a variety of sources.
- 2.d.8. use information-science resources on evidence based medicine and business management, to understand the extensive data.

3- Academic Standards

٣ - المعايير الأكاديمية للبرنامج:

- **Academic Reference Standards (ARS) of MD Program of Hepatology, Gastroenterology and Infectious diseases**, approved in department council date 6 / 2013, and in faculty council 354 date 16 / 9 / 2013.

Academic Standards for the Programme are attached in Appendix 1. (ملحق ١)

4- Reference standards

4 - العلامات المرجعية:

a) المعايير القياسية لبرامج الدراسات العليا (درجة الدبلوما) 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).

b) External references standards (Benchmarks): المعايير المرجعية الخارجية

External reference points/benchmarks are selected to confirm the appropriateness of the objectives, ILOs of the program, (ملحق ٣)



Imperial college London Medical Sciences with Gastroenterology and Hepatology 2010.

<https://education.med.imperial.ac.uk/Years/4-0910/gastrohep/index.ht>

Academic Reference standards of NAQAAE / Benchmarks are attached in Appendix 2, 3

5- هيكل ومكونات البرنامج :

(5): Curriculum structure and contents:

أ - مدة البرنامج :

2.5 years to pass Medical Doctorate degree:

1st part: - One Semester (6 months).

2nd part: - Three Semesters (18 months).

Thesis:- One Semesters (6 months) from the beginning of the 2nd part

ب - هيكل البرنامج :

الساعات المعتمدة	الكود	المقررات	البند
٦ ساعات		يشمل الآتي:	الجزء الأول
		مقررات إجبارية هي:	علوم طبية أساسية:
١	HEGAID 701	الفسبولوجيا التطبيقية	
١	HEGAID 702	البكتريولوجيا والطفيليات	
١	HEGAID 703	الباثولوجيا التطبيقية	
١	HEGAID 704	الفارماكولوجي	
كل منها ٢ ساعة		مقررات إختيارية (يختار منها واحد)	
	HEGAID 705	البيولوجيا الجزيئية وعلم الجينات	
	HEGAID 706	المناعة	
	HEGAID 707	الباثولوجيا الإكلينيكية	
	HEGAID 708	الطب النووي	
	HEGAID 709	الكيمياء الحيوية التطبيقية	



	HEGAID 710	الأشعة التشخيصية	
٢٤ ساعة		مواد التخصص ويشمل:	الجزء الثاني
٦	HEGAID 711	محاضرات نظرية	
٣	HEGAID 712	ندوات الدوريات الحديثة	
٦	HEGAID 713	دروس إكلينيكية	
٦	HEGAID 714	مرور داخلي في القسم	
٣	HEGAID 715	إجتماعات علمية موسعة	
١٥ ساعة		تشمل:	كراسة الأنشطة
٣		حضور مؤتمرات ومناقشة رسائل علمية	
		دورات تدريبية في المهارات المختلفة (حد أدنى مهارتين) وتحسب ٢ ساعة معتمدة أكل تدريب ٦ شهور في مهارة واحدة:	
		مناظير الجهاز الهضمي	
		مناظير القنوات المرارية	
		الموجات فوق الصوتية	
		الدوبلر	
		الموجات فوق الصوتية بالمنظار	
		العناية المركزة لمرضى الكبد	
		التعامل مع الاويئة	
		التعامل مع الحميات مجهولة السبب	
٤		أبحاث إضافية (غير مواضيع رسائل الطالب) تحسب ساعة لكل بحث نظري يقدم في القسم وساعتان إذا قدم في مؤتمر علمي أو كان عملياً	
١٥ ساعة			رسالة الدكتوراه
٦٠ ساعة			الإجمالي



ج: مستويات ومقررات البرنامج

First part (24 weeks duration/ 6 months)

a- Compulsory courses:

Course Title	Course Code	NO. of hours per week			Total teaching hours/ 24 weeks	
		Theoretical		Laboratory /practical		Total
		Lectures	Seminars			
1- Physiology	HEGAID 701	2		2	48	
2- Bacteriology	HEGAID 702	1		1	24	
3-Parasitology	HEGAID 702	1		1	24	
4-Pathology	HEGAID 703	2		2	48	
5-Pharmacology	HEGAID 704	2		2	48	

b- Elective courses. Only choose one of the following: (each 2 hours credit)

Course Title	Course Code
Molecular biology, genetics	HEGAID 705
Immunology	HEGAID 706
Clinical pathology	HEGAID 707
Nuclear medicine	HEGAID 708
Biochemistry	HEGAID 709
Radiology	HEGAID 710



Second part (72 weeks duration/ 18 months)

a- Compulsory courses:

Course Title	Course Code	NO. of hours per week				Total teaching hours /72 weeks
		Theoretical Lectures	Laboratory seminars /practical	Total		
Special courses:						
Lectures	HEGAID 711	4			4	288
Journal clubs	HEGAID 712		2		2	144
Clinical case	HEGAID 713			4	4	288
Rounds on department	HEGAID 714			4	4	288
Conferences	HEGAID 715		2		2	144
Total.		4	4	8	16	1152
MD thesis						15 credit

b- Elective courses. none

٦- توصيف المقررات : ملحق رقم ٧

٧ - متطلبات الإلتحاق بالبرنامج : (طبقاً لما هو مذكور في اللائحة):

(7): Program admission requirements:

: **يشترط في قيد الطالب لدرجة الدكتوراه:



مادة (٢٣) : يشترط لقيد 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 يرسب يعيد مادة الرسوب فقط.

• **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 للقيد لدرجة الدكتوراه مرتين فى السنة خلال شهرى مارس وأكتوبر من كل عام

8 - القواعد المنظمة لإستكمال البرنامج :

تتولى لجنة الدراسات العليا بالكلية عن طريق لجنة تشكل لكل تخصص من أعضاء مجلس القسم التابع له المادة والقسم المانح للدرجة وضع البرنامج التفصيلى للمقررات فى حدود الساعات المعتمدة الواردة باللائحة وعند الاختلاف يتم الاسترشاد بمقررات جامعة القاهرة ومقررات الشهادات العالمية الاوربية



والامريكية يعتمدها مجالس الأقسام ثم يقرها مجلس الكلية وتشمل هذه الساعات محاضرات نظرية ودروس عملية وتدريب اكلينيكي ومحاضرات وندوات مشتركة.

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 تقره 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 الآلى (دورة فى مقدمة الحاسب الآلى - دورة تدريبية " متوسطة " - دورة فى تطبيقات الحاسب الآلى) 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 مواعده بشهر على الأقل.

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 والاكلينكى 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 الاقل من الدرجة النهائية.

ومن ينجح فى الامتحان التحريرى يصرح له بدخول باقى الامتحانات الإكلينيكية والشفوية والعملية وعدد الرسوب يعيد الطالب الامتحان الشفوى والاكلينكى.



لا يحق للطلاب التقدم لامتحان التحريرى أكثر من أربع مرات.

مادة (٣٠) : تبين فى شهادة الدكتوراه 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 الملتحقين بالبرنامج :

9- Students Assessment Methods:

م	الوسيلة	مخرجات التعلم المستهدفة
	Written examination	To assess knowledge and understanding & intellectual skills.
	Oral examination	To assess knowledge, and understanding intellectual skills & General & transferable skills
	Practical examination	To assess knowledge, and understanding intellectual skills, professional , General & transferable skills
	Thesis discussion	To assess knowledge, and understanding intellectual skills, professional , General & transferable skills

Final exam:

First part

إجمالي	الدرجة				الاختبار	المقرر
	إكلينيكي	عملي	شفوي	تحريرى		
١٠٠			٥٠	٥٠	اختبار تحريرى مدته ثلاث ساعات + اختبار شفوي	الفسولوجيا التطبيقية
٢٠٠			١٠٠	١٠٠	اختبار تحريرى مدته ثلاث ساعات + اختبار شفوي	البكتريولوجيا والطفيليات



300			١٠٠	٢٠٠	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي	الباثولوجيا التطبيقية
200			١٠٠	١٠٠	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي	الفارماكولوجي
				١٠٠	اختبار تحريري مدته ثلاث ساعات	مقررات إختيارية (يختار منها واحد)
٨٠٠	إجمالي الدرجة					

Second part

إجمالي	الدرجة				الاختبار	المقرر
	عملي	إكلينيكي	شفهي	تحريري		
600	50	150	100	150 + 150	اختباران تحريريان مدة كل منهما ثلاث ساعات + اختبار تحريري مدته ساعة ونصف لحالة يتولى الطالب شرحها + اختبار شفهي + اختبار إكلينيكي	الكبد والجهاز الهضمي والأمراض المعدية
٦٠٠	إجمالي الدرجة					

Third part: Pass or fail according to the committee decision.

10- Evaluation of Program:

10 - طرق تقويم البرنامج:

Evaluator	Tools	sample
Internal evaluator (s) مقيّم داخلي	Report	1-2 Report
External Evaluator (s) مقيّم خارجي	Report	1-2 Report
Senior student (s) طلاب السنة النهائية	Interview, questionnaires	all
Alumni الخريجون	Interview, questionnaires	Not less than 50% from the last 3 years
Stakeholder (s) أصحاب العمل	Interview, questionnaires	Representative samples from all sectors



11: استراتيجيات التعليم و التعلم علي مستوي البرنامج:

1. استراتيجية التعلم النشط. Active learning
2. استراتيجية التعليم المبني على المخرجات. Outcome-based learning
3. استراتيجية التعليم المبني على حل المشكلات. Problem-based learning
4. استراتيجية التعليم المبني على الدليل evidence based medicine

المسئول عن البرنامج : أ.د صبري أنيس
التوقيع
التاريخ : سبتمبر، ٢٠١٣

Program Coordinator:

Name Dr Prof Sabry Anis
Date September, 2013

الملحقات :

- ملحق ١ : Academic standard of the program
- ملحق ٢: المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة.
- ملحق 3: Benchmarks (المعايير المرجعية الخارجية)
- ملحق 4: مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا الصادرة عن الهيئة.
- ملحق ٥ : مصفوفة البرنامج مع المعايير الأكاديمية للبرنامج.
- ملحق ٦: مصفوفة المقررات مع البرنامج Program–Courses ILOs Matrix
- ملحق ٧: توصيف المقررات.



ملحق ١: Academic standard of the program:

جامعة بنما

كلية الطب

قسم الطب والجهاز المضمي والأمراض المعدية

وثيقة المعايير الأكاديمية المرجعية لبرنامج الدكتوراة

Academic Reference Standards (ARS) for MD degree in Hepatology, Gastroenterology and Infectious diseases

1. Graduate Attributes:

The graduate of MD degree should be capable of:

- 1.1. Master the principles and methodologies of scientific research.
- 1.2. Work continuously to add to knowledge in the field of Hepatology, Gastroenterology and Infectious diseases.
- 1.3. Apply analytical and critical methodology for the appraisal of knowledge in the field of Hepatology, Gastroenterology and Infectious diseases and other related disciplines.
- 1.4. Integrate specialized and related knowledge deducing and developing relations between them.
- 1.5. Show deep awareness of current problems and new concepts in the field of Hepatology, Gastroenterology and Infectious diseases.
- 1.6. Identify professional problems and propose creative solutions to address them.
- 1.7. Show proficiency in a wide range of professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.
- 1.8. Show orientation towards developing new methods, tools and techniques for professional practice.



- 1.9. Use appropriate technological methods that serve his/her professional practice.
- 1.10. Communicate effectively and lead work teams in different professional contexts.
- 1.11. Make decisions in the light of available information.
- 1.12. Employ available resources effectively, develop them, and work to find new resources.
- 1.13. Show awareness of his/her role in community development and environmental preservation.
- 1.14. Conduct himself/herself in a manner that reflects integrity and sincerity, and follows the ethical code of practice.
- 1.15. Commit to continuous self-development, and the transfer of knowledge and experience to others.

2. Academic Standards:

2.1. Knowledge and understanding:

By the end of MD program, the graduate should recognize and understand the followings:

- 2.1.1. The theories, fundamentals and new knowledge in the field of Hepatology, Gastroenterology and Infectious diseases and related disciplines.
- 2.1.2. The principles, methodologies, ethics and various tools of scientific research.
- 2.1.3. The ethical and legal principles of professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
- 2.1.4. The principles and fundamentals of quality in professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
- 2.1.5. The environmental impact of professional practice and the methods for environmental preservation and development.



2.2. Intellectual skills:

By the end of MD program, graduate should be able to recognize the followings:

- 2.2.1. Analyze and assess information in the field of Hepatology, Gastroenterology and Infectious diseases, applying it and deducing from it.
- 2.2.2. Solve specialized problems based on available data.
- 2.2.3. Conduct research studies that add to knowledge.
- 2.2.4. Formulate scientific papers.
- 2.2.5. Assess risks in professional practices.
- 2.2.6. Plan for the development of performance in the field of Hepatology, Gastroenterology and Infectious diseases.
- 2.2.7. Make professional decisions in a variety of professional situations.
- 2.2.8. Demonstrate creativity and innovation.
- 2.2.9. Conduct dialogues and debates based on facts and evidence.

2.3. Practical/Professional skills

By the end of MD program, graduate should accept the followings skills:

- 2.3.1. Master basic and up to date professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.
- 2.3.2. Write and evaluate professional reports.
- 2.3.3. Evaluate and develop existing methods and tools in the field of Hepatology, Gastroenterology and Infectious diseases.
- 2.3.4. Use modern technologies to serve the professional practice.
- 2.3.5. Plan for the development of the professional practice and the performance of others.



2.4. Communication and transferable skills:

By the end of Master program, graduate should accept the following skills:

- 2.4.1. Communicate effectively using a variety of methods.
- 2.4.2. Use information technology in a manner that serves the development of professional practice.
- 2.4.3. Instruct others and evaluate their performance.
- 2.4.4. Exercise autonomy in self-evaluation and continuous learning.
- 2.4.5. Use various resources for the retrieval of information and knowledge.
- 2.4.6. Work effectively in a team as leader or member.
- 2.4.7. Manage scientific meetings and manage time effectively.

اعتماد مجلس القسم رقم، بتاريخ ٢٠١٣/٦

رئيس مجلس القسم

اعتماد مجلس الكلية ٣٥٤ ٢٠١٣/٦/١٦



ملحق 2: المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة برامج الدكتوراة

● 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 البيئية بينها
- ٥-١ اظهار وعيا عميقا بالمشاكل الجارية والنظريات الحديثة فى مجال التخصص
- ٦-١ تحديد المشكلات المهنية وايجاد حلولاً 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 للآخرين

١٦-١ المعايير القياسية

1-2 المعرفة والفهم

بانتهاج دراسة برنامج الدكتوراة يجب ان يكون الخريج قادرا على الفهم والدراسة بكل من

1-1-2 النظريات والاساسيات والحديث من المعارف فى مجال التخصص والمجالات ذات العلاقة



- 2-1-2 اساسيات ومنهجيات واخلاقيات البحث العلمى وادواته المختلفة
- 3-1-2 المبادئ الاخلاقية والقانونية للممارسة المهنية فى مجال التخصص
- 4-1-2 مبادئ واساسيات الجودة فى الممارسة فى مجال التخصص
- 5-1-2 المعارف المتعلقة بأثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها

2-2 المهارات الذهنية

- بانتهاؤ دراسة برنامج الدكتوراه يجب ان يكون الخريج قادرا على
- 1-2-2 تحليل وتقييم المعلومات فى مجال التخصص والقياس عليها والاستنباط منها
- 2-2-2 حل المشاكل المتخصصة استنادا على المعطيات المتاحة
- 3-2-2 اجراء دراسات بحثية تضيف الى المعارف
- 4-2-2 صياغة أوراق علمية
- 5-2-2 تقييم المخاطر فى الممارسات المهنية
- 6-2-2 التخطيط لتطوير الاداء فى مجال التخصص
- 7-2-2 اتخاذ القرارات المهنية فى سياقات مهنية مختلفة
- 8-2-2 الابتكار/الابداع
- 9-2-2 الحوار والنقاش المبني على البراهين والادلة

3-2 المهارات المهنية

- بانتهاؤ دراسة برنامج الدكتوراه يجب ان يكون الخريج قادرا على
- 1-3-2 اتقان المهارات المهنية الاساسية والحديثة فى مجال التخصص
- 2-3-2 كتابة وتقييم التقارير المهنية
- 3-3-2 تقييم وتطوير الطرق والادوات القائمة فى مجال التخصص
- 4-3-2 استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية



2-3-5 التخطيط لتطوير الممارسة المهنية وتنمية اداء الاخرين

2-4 المهارات العامة والمنتقلة

باتتهاء دراسة برنامج الدكتوراه يجب أن يكون الخريج قادرا على

2-4-1 التواصل الفعال بأنواعه المختلفة

2-4-2 استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية

2-4-3 تعليم الاخرين وتقييم ادائهم

2-4-4 التقييم الذاتي والتعليم المستمر

2-4-5 استخدام المصادر المختلفة للحصول على المعلومات والمعارف

2-4-6 العمل فى فريق وقيادة فرق العمل

2-4-7 ادارة اللقاءات العلمية والقدرة على ادارة الوقت



ملحق 3: Benchmarks (المعايير / العلامات المرجعية)

Imperial college London Medical Sciences with Gastroenterology and Hepatology 2010.

<https://education.med.imperial.ac.uk/Years/4-0910/gastrohep/index.htm>.

Programme Specification for the BSc in Medical Sciences with Gastroenterology and Hepatology

PLEASE NOTE. This specification provides a **concise** summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. This specification provides a source of information for students and prospective students seeking an understanding of the nature of the programme and may be used by the College for review purposes and sent to external examiners. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the course handbook or on-line at <https://education.med.imperial.ac.uk/Years/4-0910/gastrohep/index.htm>. The accuracy of the information contained in this document is reviewed by the College and may be checked by the Quality Assurance Agency.

- 1. Awarding Institution:** Imperial College London
- 2. Teaching Institution:** Imperial College London
- 3. External Accreditation by Professional / Statutory Body:** Not applicable
- 4. Name of Final Award (BEng / BSc / MEng etc):** BSc (Honours)
- 5. Programme Title (e.g. Biochemistry with Management):**
Medical Sciences with Gastroenterology and Hepatology
- 6. Name of Department / Division:** Undergraduate Medicine
- 7. Name of Faculty:** Faculty of Medicine
- 8. UCAS Code (or other coding system if relevant):** A131
- 9. Relevant QAA Subject Benchmarking Group(s) and/or other external/internal reference points:**

<http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/medicine.pdf>

10. Level(s) of programme within the Framework for Higher Education Qualifications (FHEQ): Bachelor's (BSc, BEng, MBBS)	Level 6
Integrated Master's (MSci, MEng)	Levels 6 and 7
Master's (MSc, MRes)	Level 7

- 11. Mode of Study:** Full Time
- 12. Language of Study:** English
- 13. Date of production / revision of this programme specification (month/year):** January 2010
- 14. Educational aims/objectives of the programme:**
The programme aims/objectives are to:



attract motivated students and teach them in a way that encourages originality of thought and breadth of vision;
 provide a supportive learning environment, underpinned by world class research;

provide distinctive modules at each level (Years 3 and 4 of the MBBS/BSc degree) within appropriate areas of Gastroenterology and Hepatology, drawing on the expertise and strengths of our academic staff;

produce graduates well trained in laboratory and research skills;
 foster the ability to work independently and as part of a group, and to develop presentation skills, both written and oral;

ensure that students have a broad knowledge of the gastrointestinal tract (GIT) and the liver in health and disease;

ensure that students have an understanding of the scientific basis in the study of the GIT and liver in health and disease;

15. Programme Learning Outcomes (please list the programme learning outcomes under the headings that follow. Please also list the teaching/learning methods and strategies used to promote the programme learning outcomes. Module learning outcomes can be listed within Module Handbooks and are not required for this section):

Institutions have an obligation to respond to individual needs and must have due regard to the need to eliminate unlawful disability discrimination and to promote equality of opportunity. To meet the expectations of the Disability Equality Duty (DED), institutions should be proactive in anticipating the variety of possible requirements that disabled students may have, rather than making adjustments for students on an ad hoc basis. This document should list all the skills needed for students to meet the learning outcomes of the programme and may be used by the College's Disability Advisory Service when considering reasonable adjustments to assessment. You may find the following link to the College Disability Advisory Service useful when completing this section: <http://www3.imperial.ac.uk/disabilityadvisoryservice>

1. Knowledge and Understanding

Knowledge and Understanding of:

<ol style="list-style-type: none"> 1. different scientific techniques and approaches available in gastroenterological and hepatological science; 2. how to formulate hypotheses, what constitutes good experimental design and developing a research plan; 3. critical evaluation of scientific papers; 4. have a basic understanding of the structure and function of the GIT and liver in health and disease 5. the role of new diagnostic and therapeutic techniques in the management of gastrointestinal/liver disease. 6. genetic abnormalities, and the interaction 	<p>Teaching/learning methods and strategies Acquisition of 1. to 4. is through a foundation course in Year 3 of the MBBS course and 5. to 9. is through more advanced and specialist modules available in Years 4. Lectures are an integral part of all modules and are supported by a variety of other teaching and learning methods, including tutorials, seminars, laboratory work, clinical practicals, site visits and coursework. Throughout, students are encouraged to undertake independent reading both to supplement and consolidate what is being taught/learned and to broaden their individual knowledge and understanding of the subject. Directed learning in the form of small group</p>
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between genes and the environment associated with diseases of the GIT and liver.

7. disorders of nutrition and metabolism at the organ, cellular and molecular level.

8. infective, inflammatory and immunological mechanisms involved in diseases of the GIT and liver.

9. the development of neoplasia in the GIT and liver, and the rationale for various therapies.

project work and presentations will be used to foster team work and develop transferable skills. Independent assignments include written and oral presentations, and the research project/dissertation.

Assessment of the knowledge base is through a combination of unseen written examinations, assessed coursework in the form of essays, reports, dissertations and presentations, and the individual research project report and presentation.

1. Skills and other Attributes

Intellectual Skills (lateral and critical thinking, logic): Be able to:

1. integrate and evaluate information;
2. formulate and test hypotheses using appropriate experimental design and statistical analysis of data;
3. plan, conduct and write-up a programme of original research

Teaching/learning methods and strategies

Intellectual skills are developed through the teaching and learning methods outlined above and in section 17. Information sifting and sorting, analysis and problem solving skills are promoted through the use of group exercises.

Experimental design skills are developed in lectures and coursework in the foundation and core courses and subsequently in project work. Individual, formative and summative feedback is given to students on all work produced including oral presentations.

Assessment is through coursework, unseen written examinations and project work.

1. learn effectively for the purpose of continuing professional development.

group project work.

3. is developed through tutored dissertation and the research project.

4. is taught during the Foundation course and developed during projects and other coursework activities and individual learning.

5. is developed throughout the course within a framework of staged coursework deadlines and examination system.

Although not explicitly taught, skills 6. and 7. are encouraged and developed throughout the course, which is structured and delivered in such a way as to promote this.

1. is assessed through coursework, presentations and written examinations.

2. to 4. are assessed through coursework, including



project work.

3. is also assessed through written examinations.

Term Two:

Term Three:

Year Three (if applicable):

Term one:

2-week BSc Foundation course in Gastroenterology and Hepatology with the following aims and objectives:

Analyse and interpret data, using relevant statistics where appropriate

Understand the concept of developing and testing a hypothesis

Understand the principles of experimental design

Understand the concept of plagiarism and how to avoid it

Have had experience of written scientific communication

Understand the fundamental principles and practice of scientific research

Appreciate the legal and ethical issues surrounding scientific research

Critically review scientific literature

Term Two: Not applicable

Term Three: Not applicable

Year Four (if applicable):

Term One: Students commence with **Gene Environmental Interactions: Metabolic, Genetic and Nutritional Disorders of Gut and Liver** (Module 1) in the autumn term. The module introduces the ways in which genetic and environmental factors contribute to GI and liver diseases and outlines the principles that link metabolic, genetic and nutritional factors to GI function and disorders. This is followed with Module 2, **Diagnostic and Therapeutic Principles in Gastrointestinal and Liver Disease (with Emphasis on the Science Underlying Imaging and on Neoplasia)**, which provides broad knowledge of the diagnostic and therapeutic principles relevant to the GI tract and liver on one hand, and on the other it develops an understanding of the development and diagnosis neoplasia in the GI tract and liver. The module provides also an understanding of the rationale for various therapeutic approaches.

Term Two: The spring term begins with Module 3, **Infective, Immunological and Inflammatory Mechanisms in Gut and Liver Disease**, which teaches about the interactions between pathogenic infectious agents and the host immune response in the liver and gastro-intestinal tract.

After completing the 1-3 taught modules, the students are examined on each of the modules 1 – 3. Following these examinations, students commence either a research project or a specialist course.

Term Three: The summer term continues the research project or specialist course. At the end of the research project or specialist course, students are assessed by an oral presentation of their studies and a project write-up of approximately 5000 words or a mini-project write-up respectively.

18. Support provided to students to assist learning (including collaborative students, where appropriate). (The description should include information about the induction programme, welfare and pastoral support, library and other facilities available to students,



personal tutoring, and access to teaching and learning support services, English language support, feedback to students and dissemination of actions taken as a result):

A course guide provides more detailed information (also published electronically).

The Medicine Undergraduate Teaching Intranet.

Additional information provided on Faculty/Division Intranet.

Extensive library (7-day, 24h opening in term time) and other learning resources and facilities at campus.

Dedicated computing, printing and copying facilities (including scanning) with extended daily access, and providing e-mail, on-line journals, journal databases (e.g. Web of Science, Medline). Log-on facility (VPN) from outside College.

Modern teaching laboratories and access where appropriate to adjacent research facilities.

A staff - student liaison group.

Research Seminar Series, which run weekly.

In addition to the Course Director and Module Leaders, all students are allocated personal tutors whose role is both pastoral and academic.

Student email and open personal access to tutorial staff including the Course Director, Module Leaders and the Deputy Head of Division (Teaching).

Access to the Officers of the Medics Student Union (based in the Sir Alexander Fleming Building).

Access to the Senior Welfare Tutor for Year 4 (BSc), Faculty of Medicine.

The Head of Undergraduate Medicine.

The Undergraduate Medicine Office (UMO) who provide a first point of contact for all matters concerning students.

Access to student counsellors on the South Kensington site.

Access to Teaching and Learning Support Services, which provide assistance and guidance, e.g. on careers.

Opportunities for students to conduct their Final Year Research Projects in other Departments/Centres within Imperial College.

19. Criteria for admission:

All students will have met the minimum entrance requirements for the School of Medicine MBBS/BSc programme and have successfully completed years 1 and 2 and the BSc Foundation Course (Part A) of the course.

20. Processes used to select students:

The selection of students for the BSc operates via student BSc choice submission and allocation of the students to BSc based on their submitted choices and academic performance in Years 1 and 2. A BSc Appeals procedure is in place to ensure that students unsatisfied with their original BSc choice and allocation can be considered for re-allocation to another course, subject to available places and satisfactory academic performance.

21. Methods for evaluating and improving the quality and standards of teaching and learning *Information regarding College-level practices is outlined below. Please amend this as appropriate to incorporate details of departmental activity.*

Methods for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards:



The external examiner system and Boards of Examiners are central to the process by which the College monitors the reliability and validity of its assessment procedures and academic standards. Boards of Examiners comment on the assessment procedures within the College and may suggest improvements for action by relevant departmental teaching Committees.

The Faculty Studies Committees review and consider the reports of external examiners and accrediting bodies and conduct periodic (normally quinquennial) and internal reviews of teaching provision. Regular reviews ensure that there is opportunity to highlight examples of good practice and ensure that recommendations for improvement can be made.

At programme level, the Head of Department/Division has overall responsibility for academic standards and the quality of the educational experience delivered within the department or division.

Most of the College's undergraduate programmes are accredited by professional engineering and science bodies or by the General Medical Council. Accreditation provides the College with additional assurance that its programmes are of an appropriate standard and relevant to the requirement of industry and the professions. **Mechanisms for evaluation of teaching, learning, assessment, the curriculum and outcome standards**

Annual course review undertaken by the Faculty of Medicine BSc Quality Assurance group of the Education Sub-committee Year 4 – BSc. The review will be considered by the Education Sub-committee Year 4 – BSc and will cover all aspects of the course including progression and degree statistics, External Examiner Reports, student feedback and peer review [see below], feedback from module leaders and other staff.

Staff – Student Liaison Group.

College *Student On-Line Lecturer Evaluation* (SOLE) and in-house course questionnaires organised by module convenors.

Biennial staff appraisals by Section Heads, reviewed by the Head of Department.

Peer teaching observations, which are monitored by the Deputy Head of Division (Teaching).

External Examiner reports.

Division Executive Committee.

Review by the Quality Assurance Agency.

Reviews by the GMC.

Committees with responsibility for monitoring and evaluating quality and standards:

The **Senate** oversees the quality assurance and regulation of degrees offered by the College. It is charged with promoting the academic work of the College, both in teaching and research, and with regulating and supervising the education and discipline of the students of the College. It has responsibility for approval of changes to the Academic Regulations, major changes to degree programmes and approval of new programmes.

The **Quality Assurance Advisory Committee** (QAAC) is the main forum for discussion of QA policy and the regulation of degree programmes at College level. QAAC develops and advises the Senate on the implementation of codes of practice and procedures relating to quality assurance and audit of quality and arrangements necessary to ensure compliance with national and international standards. QAAC also considers amendments to the Academic Regulations before making recommendations for change to the Senate. It also maintains an overview of the statistics on completion rates, withdrawals, examination irregularities (including cases of plagiarism), student appeals and disciplinaries.



The **Faculty Studies Committees** are the major vehicle for the quality assurance of undergraduate courses. Their remit includes: setting the standards and framework, and overseeing the processes of quality assurance, for the areas within their remit; monitoring the provision and quality of e-learning; undertaking reviews of new and existing courses; noting minor changes in existing programme curricula approved by Departments; approving new modules, changes in module titles, major changes in examination structure and programme specifications for existing programmes; and reviewing proposals for new programmes, and the discontinuation of existing programmes, and making recommendations to Senate as appropriate.

The **Faculty Teaching Committees** maintain and develop teaching strategies and promote inter-departmental and inter-faculty teaching activities to enhance the efficiency of teaching within Faculties. They also identify and disseminate examples of good practice in teaching.

Departmental Teaching Committees have responsibility for the approval of minor changes to course curricula and examination structures and approve arrangements for course work. They also consider the details of entrance requirements and determine departmental postgraduate student numbers. The Faculty Studies Committees receive regular reports from the Departmental Teaching Committees.

Committees with responsibility for monitoring and evaluating quality and standards

Staff – Student Liaison Group.

Faculty of Medicine BSc Quality Assurance group.

Faculty of Medicine Education Sub-committee Year 4 – BSc.

Medical Studies Committee.

Divisional Executive Committee.

Board and Sub-Board of Examiners – meets to consider final degrees.

Examinations and Assessments Committee.

College Undergraduate Studies Committee.

College Quality Assurance Committee (with student representation).

Imperial College, Senate

c) Mechanisms for providing prompt feedback to students on their performance in course work and examinations and processes for monitoring that these named processes are effective:

The following regulations and guidelines for feedback on student performance apply:

There is no definitive College ruling on the means of providing assessment results for coursework other than that that marks should be released to students after confirmation by the Board of Examiners. Course tutors should ensure that the students are given appropriate feedback on their work by issuing marks indicative of the boundaries within which the actual marks fall (i.e. first class; upper second; lower second; third; pass; fail) according to the following criteria:

Marks should only be given for coursework which contributes to the assessment of a discrete course element, e.g. practical write-ups, coursework essays.

Marks should not be issued for major discrete course elements, e.g. final year projects and dissertations prior to the meeting of the Board of Examiners. Detailed information of marks for elements of formal examinations (Part B) can only be released to a student after he/she had submitted a request under the Freedom of Information Act to Registry that is liable to a fee. Granted requests allow the student access to his/her script under supervision



by a member of the UMO. The granted requests do not allow copying of documents or subsequent discussion of assigned marks with examiners.

Marks for any element of work should be released simultaneously to the entire cohort of students after undergoing departmental moderation procedure

Students must be informed that all marks released are provisional until confirmed by the Board of Examiners. Any noted justifications for issued marks should be maintained for at least a year.

Coursework should normally be marked and returned to provide feedback within two weeks of the deadline for submission.

As good practice, it is recommended that the BSc courses use an approved In-course Assessment Feedback form for feedback on student performance in the in-course assessment of the Part B modules and the BSc Foundation course.

d) Mechanisms for gaining student feedback on the quality of teaching and their learning experience and how students are provided with feedback as to actions taken as a result of their comments:

Staff – Student Liaison Group.

Faculty of Medicine Education Sub-committee Year 4 – BSc - student representative.

Feedback sessions for each module and SOLE

Undergraduate Medical Office, Personal Tutors, Head of Pastoral Care (FoM), Course Directors and Module Leaders.

Vivas with External Examiners.

e) Mechanisms for monitoring the effectiveness of the personal tutoring system:

The BSc Welfare Tutoring system, introduced from 2009/10, is designed to cater for the welfare needs of BSc students coming off the clinical Year 3. In Year 4, the BSc students will retain their clinical tutor but will also have an allocated BSc course tutor. The BSc Welfare tutoring system will be overseen by the Senior Welfare Tutor for the BSc in the Faculty of Medicine, the Head of Undergraduate Medicine, and the established committee structure for the BSc, beginning with the Staff-Student Liaison Group - Year 4 (SSLG 4).

Mechanisms for recognising and rewarding excellence in teaching and in pastoral care:

Staff are encouraged to reflect on their teaching, in order to introduce enhancements and develop innovative teaching methods. Each year College awards are presented to academic staff for outstanding contributions to teaching, pastoral care or research supervision. A special award for Teaching Innovation, available each year, is presented to a member of staff who has demonstrated

an original and innovative approach to teaching. Nominations for these awards come from across the College and students are invited both to nominate staff and to sit on the deciding panels.

g) Staff development priorities for this programme include:

College and Faculty of Medicine Staff Development Courses; staff appraisal scheme and institutional staff development courses; active encouragement of membership of the ILTHE; new Lecturers are encouraged to take the Certificate of Advanced Study in Learning and Teaching [CASLAT] run by the Imperial College Centre for Educational Development; College Teaching Development and Teaching Research Grant Schemes to fund the



development of, and research into, new teaching and appraisal methods; Updating professional and IT/computing developments.

22. Regulation of Assessment (you may find the following link useful when completing this section: <http://www3.imperial.ac.uk/registry/information/academicregulations>)

Assessment Rules and Degree Classification:

For **undergraduate programmes** classification of degrees will be according to the following range of marks:

First class 70 - 100%

Second class (upper division) 60 - 69.9%

Second class (lower division) 50 - 59.9%

Third class 40 - 49.9%

For **postgraduate taught programmes**: The Pass Mark for postgraduate taught courses is 50%. In order to be awarded a result of merit, a candidate must obtain an aggregate mark of 60% or greater; a result of distinction requires an aggregate mark of 70% or greater.

Where appropriate, a Board of Examiners may award a result of merit where a candidate has achieved an aggregate mark of 60% or greater across the programme as a whole AND has obtained a mark of 60% or greater in each element with the exception of one element AND has obtained a mark of 50% or greater in this latter element.

Where appropriate, a Board of Examiners may award a result of distinction where a candidate has achieved an aggregate mark of 70% or greater across the programme as a whole AND has obtained a mark of 70% or greater in each element with the exception of one element AND has obtained a mark of 60% or greater in this latter element.

Assessment in the BSc in Medical Sciences with Cardiovascular Sciences

The BSc Foundation course in Year 3 is assessed via course work only. The in-course assessment will comprise one compulsory piece, the type of which will be at the discretion of the course organiser.

The BSc, Part B, is assessed via in-course assessment – 2 compulsory pieces for each of the three Part B modules, contributing a total of 30% of the module's mark, and a written examination paper, part of the Part B examination, contributing 70% of the overall module mark.

Part C of the BSc is assessed 1) for students undertaking a BSc Project: via a project write-up, contributing 80% to the overall Part C mark, and an oral presentation of the project, contributing 20% of the overall Part C mark; 2) for students undertaking a specialist course: via in-course assessment – two pieces contributing a total of 40% (20% each) of the overall Part C mark, a mini-project write-up, contributing 40% of the overall Part C mark, and an oral presentation of the mini-project, contributing 20% of the overall Part C mark.

Marking Schemes for undergraduate taught programmes:

The Pass Mark for all **undergraduate** modules is 40%. From October 2008 entry all undergraduates are required to pass all their course units to progress to the next year.

Processes for dealing with mitigating circumstances:

For undergraduate programmes: Candidates with mitigating circumstances are not subject to the borderline restrictions but should be considered individually. However, as a general



principle, candidates whose marks are more than 5% below the borderline should not normally be raised to the next higher classification. Where the Board of Examiners determines that a higher classification should be awarded extra marks should be applied to bring the final marks into the higher range.

Processes for determining degree classification for borderline candidates:

For **undergraduate programmes**: Candidates who fall no more than 2.5% below the minimum mark for a higher honours classification shall be eligible for review of their final classification; this review could include an oral examination or practical test or other mechanism appropriate to the discipline. Candidates whose marks are below the 2.5% borderline may be considered for a higher honours classification where certain provisions apply. Where the Board of Examiners determines that a candidate should be awarded a higher honours classification extra marks should be applied to bring their final marks into the higher range. Detailed records of all decisions should be recorded in the minutes of the meeting of the Board.

Role of external examiners:

The primary duty of external examiners is to ensure that the degrees awarded by the College are consistent with that of the national university system. External examiners are also responsible for approval of draft question papers, assessment of examination scripts, projects and coursework (where appropriate) and in some cases will attend *viva voce* and clinical examinations. Although external examiners do not have power of veto their views carry considerable weight and will be treated accordingly. External examiners are required to attend each meeting of the Board of Examiners where recommendations on the results of individual examinations are considered. External examiners are required to write an annual report to the Rector of Imperial College which may include observations on teaching, course structure and course content as well as the examination process as a whole. The College provides feedback to external examiners in response to recommendations made within their reports.

23. Indicators of Quality and Standards (e.g. accreditation reports):

Favourable comments by External Examiners.

High proportion of students achieving a First Class or Upper Second Class Honours Degree.

Independent review of the quality of the educational provision of the Department by the Quality Assurance Agency subject review and by the GMC.

24. Key sources of information about the programme can be found in (links to course handbook, prospectus, departmental website, syllabus etc):

<https://education.med.imperial.ac.uk/Years/4-0910/gastrohep/index.htm>

ملحق 4: مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا
الصادرة عن الهيئة

مواصفات الخريج:

مواصفات الخريج بالمعايير الأكاديمية للبرنامج	مواصفات الخريج بالمعايير القياسية للدراسات العليا درجة الدكتوراة
1-1 Master the principles and methodologies of scientific research.	١-١ إتقان أساسيات ومنهجيات البحث العلمي
1-2 Work continuously to add to knowledge in the field of Hepatology, Gastroenterology and Infectious diseases.	١-٢ العمل المستمر على الإضافة للمعارف في مجال التخصص
1-3 Apply analytical and critical methodology for the appraisal of knowledge in the field of Hepatology, Gastroenterology and Infectious diseases and other related disciplines.	١-٣ تطبيق المنهج التحليلي والناقد للمعارف في مجال التخصص والمجالات ذات العلاقة
1-4 Integrate specialized and related knowledge deducing and developing relations between them.	١-٤ دمج المعارف المتخصصة مع المعارف ذات العلاقة مستنبطاً ومطوراً للعلاقات البينية بينها
1-5 Show deep awareness of current problems and new concepts in the field of Hepatology, Gastroenterology and Infectious diseases.	١-٥ اظهار وعيا عميقا بالمشاكل الجارية والنظريات الحديثة في مجال التخصص
1-6 Identify professional problems and propose creative solutions to address them.	١-٦ تحديد المشكلات المهنية وايجاد حلولاً مبتكرة لحلها
1-7 Show proficiency in a wide range of professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.	١-٧ إتقان نطاقاً واسعاً من المهارات المهنية في مجال التخصص
1-8 Show orientation towards developing new methods, tools and techniques for professional	١-٨ التوجه نحو تطوير طرق وادوات واساليب جديدة للمزاولة المهنية

practice.	
1-9 Use appropriate technological methods that serve his/her professional practice.	٩-١ استخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسة المهنة
1-10 Communicate effectively and lead work teams in different professional contexts.	١٠-١ التواصل بفاعلية وقيادة فريق عمل في سياقات مهنية مختلفة
1-11 Make decisions in the light of available information.	١١-١ اتخاذ القرار في ضل المعلومات المتاحة
1-12 Employ available resources effectively, develop them, and work to find new resources.	١٢-١ توظيف الموارد المتاحة بكفاءة وتنميتها والعمل على ايجاد موارد جديدة
1-13 Show awareness of his/her role in community development and environmental preservation.	١٣-١ الوعي بدوره في تنمية المجتمع والحفاظ على البيئة
1-14 Conduct himself/herself in a manner that reflects integrity and sincerity, and follows the ethical code of practice.	١٤-١ التصرف بما يعكس الالتزام بالنزاهة والمصداقية وقواعد المهنة
1-15 Commit to continuous self-development, and the transfer of knowledge and experience to others.	١٥-١ الالتزام بالتنمية الذاتية المستمرة ونقل علمه وخبراته للآخرين

أ - المعرفة والفهم:

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة للدراسات العليا (درجة الدكتوراة)
2-1-1 The theories, fundamentals and new knowledge in the field of Hepatology, Gastroenterology and Infectious diseases and related disciplines.	1-1-2 النظريات والاساسيات والحديث من المعارف فى مجال التخصص والمجالات ذات العلاقة
2-1-2 The principles, methodologies, ethics and various tools of scientific research.	2-1-2 اساسيات ومنهجيات واخلاقيات البحث العلمى وادواته المختلفة
2-1-3 The ethical and legal principles of professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.	3-1-2 المبادئ الاخلاقية والقانونية للممارسة المهنية فى مجال التخصص
2-1-4 The principles and fundamentals of quality in professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.	4-1-2 مبادئ واساسيات الجودة فى الممارسة فى مجال التخصص
2-1-5 The environmental impact of professional practice and the methods for environmental preservation and development.	5-1-2 المعارف المتعلقة بأثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها

ب - القدرات الذهنية :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة للدراسات العليا (درجة الدكتوراة)
2-2-1 Analyze and assess information in the field of Hepatology, Gastroenterology and Infectious diseases, applying it and deducing from it.	1-2-2 تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها
2-2-2 Solve specialized problems based on available data.	2-2-2 حل المشاكل المتخصصة استنادا على المعطيات المتاحة
2-2-3 Conduct research studies that add to knowledge.	3-2-2 اجراء دراسات بحثية تضيف الى المعارف
2-2-4 formulate scientific papers.	4-2-2 صياغة أوراق علمية
2-2-5 Assess risks in professional practices.	5-2-2 تقييم المخاطر في الممارسات المهنية
2-2-6 Plan for the development of performance in the field of Hepatology, Gastroenterology and Infectious diseases.	6-2-2 التخطيط لتطوير الاداء في مجال التخصص
2-2-7 Make professional decisions in a variety of professional situations.	7-2-2 اتخاذ القرارات المهنية في سياقات مهنية مختلفة
2-2-8 Demonstrate creativity and innovation.	8-2-2 الابتكار/الابداع
2-2-9 Conduct dialogues and debates based on facts and evidence.	9-2-2 الحوار والنقاش المبني على البراهين والادلة

ج. مهارات مهنية وعملية :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة للدراسات العليا (درجة الدكتوراة)
2-3-1 Master basic and up to date professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.	1-3-2 إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص
2-3-2 Write and evaluate professional reports.	2-3-2 كتابة وتقييم التقارير المهنية
2-3-3 Evaluate and develop existing methods and tools in the field of Hepatology, Gastroenterology and Infectious diseases.	3-3-2 تقييم وتطوير الطرق والادوات القائمة في مجال التخصص
2-3-4 Use modern technologies to serve the professional practice.	4-3-2 استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية
2-3-5 Plan for the development of the professional practice and the performance of others.	5-3-2 التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين

د . مهارات عامة و منتقلة :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة للدراسات العليا (درجة الدكتوراة)
2-4-1 Communicate effectively using a variety of methods.	1-4-2 التواصل الفعال بأنواعه المختلفة
2-4-2 Use information technology in a manner that serves the development of professional practice.	2-4-2 استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية
2-4-3 Instruct others and evaluate their	3-4-2 تعليم الآخرين وتقييم ادائهم

performance.	
2-4-4 Exercise autonomy in self-evaluation and continuous learning.	4-4-2 التقييم الذاتي والتعليم المستمر
2-4-5 Use various resources for the retrieval of information and knowledge.	5-4-2 استخدام المصادر المختلفة للحصول على المعلومات والمعارف
2-4-6 Work effectively in a team as leader or member.	6-4-2 العمل في فريق وقيادة فرق العمل
2-4-7 Manage scientific meetings and manage time effectively.	7-4-2 ادارة اللقاءات العلمية والقدرة على ادارة الوقت

ملحق ٥: مصفوفة مضاهاة المعايير الأكاديمية للبرنامج و أهداف و نواتج تعلم البرنامج

أهداف البرنامج	المعايير الأكاديمية للبرنامج (مواصفات الخريج):
1-1	1-1 Master the principles and methodologies of scientific research.
1-2	1-2 Work continuously to add to knowledge in the field of Hepatology, Gastroenterology and Infectious diseases.
1-3	1-3 Apply analytical and critical methodology for the appraisal of knowledge in the field of Hepatology, Gastroenterology and Infectious diseases and other related disciplines.
1-4	1-4 Integrate specialized and related knowledge deducing and developing relations between them.
1-5	1-5 Show deep awareness of current problems and new concepts

	in the field of Hepatology, Gastroenterology and Infectious diseases.
1-6	1-6 Identify professional problems and propose creative solutions to address them.
1-7	1-7 Show proficiency in a wide range of professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.
1-8	1-8 Show orientation towards developing new methods, tools and techniques for professional practice.
1-9	1-9 Use appropriate technological methods that serve his/her professional practice.
1-10	1-10 Communicate effectively and lead work teams in different professional contexts.
1-11	1-11 Make decisions in the light of available information.
1-12	1-12 Employ available resources effectively, develop them, and work to find new resources.
1-13	1-13 Show awareness of his/her role in community development and environmental preservation.
1-14	1-14 Conduct himself/herself in a manner that reflects integrity and sincerity, and follows the ethical code of practice.
1-15	1-15 Commit to continuous self-development, and the transfer of knowledge and experience to others.

نواتج تعلم البرنامج										المعايير الأكاديمية للبرنامج		
المعرفة و الفهم												
		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.
						√		√		√	√	2-1-1 The theories, fundamentals and new knowledge in the field of Hepatology, Gastroenterology and Infectious diseases and related disciplines.
				√		√	√	√				2-1-2 The principles, methodologies, ethics and various tools of scientific research.
		√		√	√		√				√	2-1-3 The ethical and legal principles of professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
			√	√	√			√	√			2-1-4 The principles and fundamentals of quality in professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
		√		√		√		√	√			2-1-5 The environmental impact of professional practice and the methods for environmental preservation and development.

نواتج تعلم البرنامج										المعايير الأكاديمية للبرنامج المهارات الذهنية
Intellectual skills										
		2.b.8	2.b.7	2.b.6	2.b.5	2.b.4	2.b.3	2.b.2.	2.b.1.	
		√			√		√	√	√	2-2-1 Analyze and assess information in the field of Hepatology, Gastroenterology and Infectious diseases, applying it and deducing from it.
		√					√	√		2-2-2 Solve specialized problems based on available data.
			√		√		√			2-2-3 Conduct research studies that add to knowledge.
		√			√	√				2-2-4 formulate scientific papers.
			√	√						2-2-5 Assess risks in professional practices.
		√			√	√		√		2-2-6 Plan for the development of performance in the field of Hepatology, Gastroenterology and Infectious diseases.
				√	√					2-2-7 Make professional decisions in a variety of professional situations.
			√				√			2-2-8 Demonstrate creativity and innovation.
		√	√					√		2-2-9 Conduct dialogues and debates based on facts and evidence.

نواتج تعلم البرنامج								المعايير الأكاديمية للبرنامج المهارات المهنية
Practical/Professional skills								
2.c.1.	2.c.2.	2.c.3	2.c.4	2.c.5	2.c.6	2.c.7		
√			√	√				2-3-1 Master basic and up to date professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.
	√		√		√	√		2-3-2 Write and evaluate professional reports.
√		√			√	√		2-3-3 Evaluate and develop existing methods and tools in the field of Hepatology, Gastroenterology and Infectious diseases.
	√					√		2-3-4 Use modern technologies to serve the professional practice.
√				√	√			2-3-5 Plan for the development of the professional practice and the performance of others.

نواتج تعلم البرنامج										المعايير الأكاديمية للبرنامج	
General and transferable skill										المهارات العامة والمنتقلة	
			2.d.8	2.d.7	2.d.6	2.d.5	2.d.4	2.d.3	2.d.2.	2.d.1.	
			√		√		√				2-4-1 Communicate effectively using a variety of methods.
						√	√		√		2-4-2 Use information technology in a manner that serves the development of professional practice.
			√	√		√					2-4-3 Instruct others and evaluate their performance.
							√			√	2-4-4 Exercise autonomy in self-evaluation and continuous learning.
				√	√	√		√			2-4-5 Use various resources for the retrieval of information and knowledge.
				√		√	√				2-4-6 Work effectively in a team as leader or member.
			√			√	√				2-4-7 Manage scientific meetings and manage time effectively.

ملحق (6) مصفوفة المعارف والمهارات للبرنامج الدراسي

مهارات ذهنية								المعارف										المقررات		
2. b. 8.	2. b. 7.	2. b. 6.	2. b. 5.	2. b. 4.	2. b. 3.	2. b. 2.	2. b. 1.	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.			
														√			√			Physiology
														√			√			Bacteriology & Parasitology
														√	√					Pathology
				√	√											√				Pharmacology
√	√	√	√	√	√	√	√	√	√	√	√	√	√			√	√	√		Hepatology, Gastroenterology & infectious diseases
مهارات عامة								مهارات مهنية										المقررات		
2. b. 7.	2. b. 6.	2. b. 5.	2. b. 4.	2. b. 3.	2. b. 2.	2. b. 1.	2.a. 8.	2.a.7 .	2.a.6 .	2.a.5 .	2.a.4 .	2. a. 3.	2. a. 2.				2a1			
												√					√			Physiology
										√			√							Bacteriology & Parasitology
										√	√									Pathology
			√	√									√							Pharmacology
√	√	√	√	√	√	√	√	√	√				√	√			√			Hepatology, Gastroenterology & infectious diseases

ملحق ٧

توصيف المقررات

Program courses

First part
1- Physiology
2- Bacteriology
3- Parasitology
4-Pathology
5-Pharmacology
6- Elective course
Second part
1- Hepatology, Gastroenterology and infectious diseases

Course Specifications

Course title: **Medical Doctorate of Hepatology and Gastroenterology and Infectious diseases.**

HEGAID 711-715 (Code)

Academic Year (2013 – 2014)

- **Department offering the course** Hepatology and Gastroenterology and Infectious diseases.

.academic year of Medical Doctorate of Hepatology and Gastroenterology and Infectious diseases

Date of specification approval Faculty Council number --319-----, dated 20/6/2013

A) Basic Information:

- **Allocated marks:** 600 marks
- **Course duration:** 72 weeks of teaching
- **Teaching hours:** 24 hours/week = 1152 total teaching hours

B) Professional Information:

1- Overall Aims of the Program:

The overall goals of the program are to develop a student with the following characteristics:

1.1. Have the recent scientific knowledge essential for the mastery of HEGAID according to the international standards.

- 1.2. Have the skills necessary for proper diagnosis and management of patients in the field of HEGAID including diagnostic, problem solving and decision making skills.
- 1.3. Know ethical principles related to medical practice in this specialty .
- 1.4. Participate actively in community needs assessment and problems identification.
- 1.٥. Be concerned about new and recent guidelines in dealing with different medical problems.
- 1.٦. Behave ethically and honorably in his medical practice.
- 1.٧. Produce graduates well trained in laboratory and research skills.
- 1.٨. Foster the ability to work independently and as part of a group, and to develop presentation skills, both written and oral.
- 1.٩. Capable of performing and/or interpreting all procedures and diagnostic tests routinely done in the evaluation and treatment of gastroenterological patients, trainees have to gain experience under direct supervision.
- 1.١٠. An adequate number of routine endoscopic procedures have to be performed in order to reach the minimum standards. Trainees should also be skilled in the principles of caring for, cleaning, handling, and maintaining endoscopic equipment.

2-Intended Learning Outcomes (ILOS):

2.a. Knowledge and Understanding

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

- 2.a.1. Define the basic and recent principles in the field of hepatology and gastroenterology and infectious diseases and related fields.
- 2.a.2. Recognize the effect of his clinical practice on environment and principles of environmental development and saving.

- 2.a.3. List the different scientific techniques and approaches available in gastroenterological and hepatological science.
- 2.a.4. Describe the basics of the structure and function of the GIT and liver in health and disease.
- 2.a.5. List infective, inflammatory and immunological mechanisms involved in diseases of the GIT and liver.
- 2.a.6. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of hepatic and GIT diseases.
- 2.a.7. List the indications for, contraindications against and complications of major endoscopic procedures.
- 2.a.8. Recognize the principles and fundamentals of ethics and legal aspects of professional practice in the field of HEGAID.
- 2.a.9. Know the principles and fundamentals of quality assurance of professional practice in the field of HEGAID.
- 2.a.10. Recognize Principles, methodologies, tools and ethics of scientific research.

٢. ب - القدرات الذهنية :

2.b. Intellectual Skills:-

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

- 2.b.1. Interpret data acquired through history taking to reach a provisional diagnosis for hepatic and GIT problems.
- 2.b.2. Analyze different diagnostic alternatives and select the ones that help reaching a final diagnosis for hepatic and GIT problems.
problems.
- 2.b.3. Assess risk in professional practices in the field of HEGAID.
- 2.b.4. Assess the performance in the field of HEGAID and how to improve.

2.b.5. Have the ability to behave in accordance with professional principles, such as: altruism, accountability, excellence, duty, service, honor, integrity, and respect for others. serving the interests of the patient, rather than one's own interests.

2.b.6. Have the ability to work effectively and efficiently with members of other specialties, such as cardiology, critical-care medicine, oncology, surgery, pathology, and radiology, as well as with nurses, pharmacists, social assistants, and psychologists.

2.b.7. Have the ability to lead multidisciplinary and interdisciplinary teams and collaborate with primary caregivers.

2.b.8. Have the ability to use information-science resources on evidencebased medicine and business management, to understand the extensive data.

٢.ج . مهارات مهنية وعملية :

2.c. Practical & Clinical Skills:-

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

2.c.1. Perform the basic and modern professional skills in the area of HEGAID.

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

2.c.3. Recognize and develop methods and tools existing in the area of HEGAID.

2.c.4. Perform endoscopic and imaging evaluation of gastrointestinal system.

2.c.5. Perform safely some laboratory based experiments.

2.c.6. Perform efficiently some Endoscopic skills.

2.c.7. Have experience in patient care.

2.d. General and transferable skills:-

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

- 2.d.1. Communicate clearly, sensitively and effectively.
- 2.d.2. Use scientific technology.
- 2.d.3. Use available resources to get data and knowledge.
- 2.d.4. Leading seminars and time management and directing.
- 2.d.5. Communicate effectively through oral presentations and written reports.
- 2.d.6. Work independently and as part of a team.

3- Course contents:

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Practical (hrs)	Total (hrs)	% of Total
1- Hepatic disorders	4				12.5
2- GIT disorders	4				12.5
3- Infectious diseases	8				25
4- Clinical	2	1			25
5- Applied Research	2	1			25

III-A) TOPICS: Diseases of the GIT, Liver, Pancreas and Biliary System:

A: Gastrointestinal&Hepatobiliary

- 1. Esophagus**
- 2. Swallowing disorders and dysphagia.**
- 3. Gastroesophageal reflux disease.**
- 4. Esophageal causes of chest pain.**
- 5. Achalasia.**

- 6. Esophageal cancer.**
- 7. The esophagus: anomalies, infections, and nonacid injuries.**
- 8. Barrett's esophagus.**
- 9. Esophageal and stomach pathology.**
- 10. Stomach**
- 11. Gastritis.**
- 12. Gastric cancer.**
- 13. Helicobacter pylori and peptic ulcer disease.**
- 14. Gastric polyps and thickened gastric folds.**
- 15. Liver And Billiard Tract Disorders**
- 16. Evaluation of abnormal livers tests.**
- 17. Viral hepatitis.**
- 18. Antiviral therapy for hepatitis C infection.**
- 19. Antiviral therapy for hepatitis B.**
- 20. Autoimmune hepatitis: diagnosis and pathogenesis.**
- 21. Autoimmune hepatitis: treatment.**
- 22. Primary biliray cirrhosis and primary sclerosing cholangitis.**
- 23. Hepatitis vaccines and immunoprophylaxis.**
- 24. Pregnancy and liver disease.**
- 25. Rheumatologic manifestations of hepatobiliary disease.**
- 26. Evaluation of focal liver disease.**
- 27. Drug-induced liver disease.**
- 28. Alcoholic liver disease.**
- 29. Vascular liver disease.**
- 30. Nonalcoholic fatty liver disease.**
- 31. liver transplantation.**
- 32. Ascites.**
- 33. Liver abscess.**

- 34. inheritable forms of liver disease.**
- 35. liver histopathology.**
- 36. Hepatobiliary cystic disease.**
- 37. Gallbladder: Stones, Sludge, and polyps.**
- 38. Sphincter of oddi dysfunction.**
- 39. Pancreatic Disorders**
- 40. Acute pancreatitis.**
- 41. Chronic pancreatitis.**
- 42. Pancreatic cancer.**
- 43. Cystic disease of the pancreas.**
- 44. Small And Large Bowel Disorders.**
- 45. Crohn's disease.**
- 46. Ulcerative colitis.**
- 47. Eosinophilic gastroenteritis.**
- 48. Bacterial overgrowth.**
- 49. Colon Disorders**
- 50. Colorectal cancer and colon cancer screening.**
- 51. Constipation and fecal incontinence.**
- 52. Diverticulitis.**
- 53. Disease of the appendix.**
- 54. Colitis: pseudomembranous, microscopic, and radiation.**
- 55. Genral Symptoms And Conditions**
- 56. Upper gastrointestinal tract hemorrhage.**
- 57. Lower gastrointestinal tract bleeding.**
- 58. Occult and obscure gastrointestinal bleeding.**
- 59. Evaluation of acute abdominal pain.**
- 60. Evaluation of acute diarrhea.**
- 61. Chronic diarrhea.**

- 62. Aids and gastrointestinal tract.**
- 63. Ischemic bowel disease.**
- 64. Nutrition of the lower gastrointestinal tract.**
- 65. Pathology of the lower gastrointestinal tract.**
- 66. Foreign bodies and the gastrointestinal tract.**
- 67. Functional gastrointestinal disorders and irritable bowel syndrome.**
- 68. Endoscopic cancer screening and surveillance.**
- 69. Multisystem manifestations of GI Disease**
- 70. Rheumatologic manifestations of gastrointestinal disease.**
- 71. Dermatologic manifestations of gastrointestinal disease.**
- 72. Endocrine aspects gastroenterology.**
- 73. Gastrointestinal Radiology**
- 74. Radiography and radiographic-fluoroscopic contrast examinations.**
- 75. Interventional radiology: cross-sectional imaging procedures.**
- 76. Noninvasive gastrointestinal imaging: ultrasound, computed tomography, and magnetic resonance scanning.**
- 77. Interventional radiology: fluoroscopic and angiographic procedures.**
- 78. Nuclear imaging.**
- 79. Endoscopic ultrasound.**
- 80. Advanced therapeutic endoscopy.**
- 81. Surgery And The GI tract**
- 82. Surgery: gastroesophageal reflux and esophageal hernias.**
- 83. Surgery: achalasia and esophageal cancer.**
- 84. Surgery for peptic ulcer disease.**
- 85. Surgical approach the acute abdomen.**
- 86. Colorectal Surgery: polyposis syndromes and inflammatory bowel disease.**
- 87. Bariatric Surgery.**
- 88. Laparoscopic Surgery.**

B: Infectious diseases

- 89. Introduction to microbial diseases.**
- 90. The febrile patient**
- 91. The pathogenesis of fever**
- 92. The acute phase response**
- 93. The compromised host**
- 94. Prevention and control of hospital-acquired infections**
- 95. Advice to travelers**
- 96. Introduction to bacterial diseases**
- 97. Antibacterial therapy**
- 98. pneumococcal pneumonia**
- 99. mycoplasmal infection**
- 100. Pneumonia caused by aerobic gram-negative bacilli**
- 101. Aspiration pneumonia**
- 102. legionellosis**
- 103. Streptococcal infections**
- 104. Rheumatic fever**
- 105. Infective endocarditic**
- 106. Staphylococcal infections**
- 107. Bacterial meningitis**
- 108. Meningococcal infections**
- 109. Infections caused by heamophilus species**
- 110. Osteomyelitis**
- 111. Whooping cough (pertussis)**
- 112. Diptheria**
- 113. Clostridial myonecrosis and other clostridial diseases**
- 114. Pseudomembranous colitis**
- 115. Botulism**
- 116. Tetanus**

117. Diseases caused by non-spore-forming anaerobic bacteria
118. Introduction to enteric infections
119. Typhoid fever
120. Salmonella infections other than typhoid fever
121. Shigellosis
122. Campylobacter enteritis
123. Cholera
124. Enteric escherichia coli infections
125. The diarrhea of travelers
126. yersinia infections
127. Tularemia
128. Anthrax
129. Diseases caused by pseudomonads
130. Listeriosis
131. Erysipeloid
132. Action mycosis
133. Nocardiosis
134. Brucellosis
135. Diseases caused by bartonella species
136. Tuberculosis
137. Other mycobacterioses
138. Leprosy (hansen's disease)
139. Urinary tract infections
140. Introduction to sexually transmitted diseases and common syndromes
141. Gonococcal infections
142. Granuloma inguinale
143. Chancroid
144. Syphilis

145. **Nonsyphilitic treponematoses**
146. **Relapsing fever**
147. **Lyme disease**
148. **Leptospirosis**
149. **Diseases caused by chlamydiae**
150. **Rickettsioses**
151. **Zoonoses**
152. **Introduction to viral diseases**
153. **Antiviral therapy (non-aids)**
154. **The common cold**
155. **Viral pharyngitis, laryngitis, croup, and bronchitis**
156. **Respiratory syncytial virus**
157. **Parainfluenza viral disease**
158. **Influenza**
159. **Adenovirus diseases**
160. **Measles**
161. **Rubella (german measles)**
162. **Varicella (chickenpox, shingles)**
163. **Mumps**
164. **Herpes simplex virus infections**
165. **Infections associated with human cytomegalovirus**
166. **Infectious mononucleosis: epstein-barr virus infection**
167. **Retroviruses other than hiv**
168. **Enteroviruses**
169. **Viral gastroenteritis**
170. **Introduction to hemorrhagic fever viruses**
171. **Arthropod-borne viruses causing fever and rash syndromes**
172. **Anthropod-borne viruses affecting the central nervous system**
173. **Introduction to the mycoses**

174. **Hietoplasmosis**
175. **Coccidioidomycosis**
176. **Blastomycosis**
177. **Paracoccidioidomycosis**
178. **Cryptococcosis**
179. **Sporotrichosis**
180. **Candidiasis**
181. **Aspergillosis**
182. **Pneumocystis carinii pneumonia**
183. **Mucormycosis**
184. **Mycetoma**
185. **Dematiaceous fungal infections**
186. **Introduction to protozoan and helminthic diseases**
187. **Malaria**
188. **african trypanosomiasis (sleeping sickness)**
189. **american trypanosomiasis (chagas' disease)**
190. **leishmaniasis**
191. **toxoplasmosis**
192. **cryptosporidiosis**
193. **giardiasis**
194. **amebiasis**
195. **other protozoan diseases**
196. **cestode infections**
197. **schistosomiasis (bilharziasis)**
198. **liver, intestinal, and lung fluke infections**
199. **nematode infections**
200. **filariasis**
201. **arthropods and leeches**
202. **venomous snake bites**

203. venoms and poisons from marine organisms

Practical Topics:

- Imaging of G.I.T.
- Abdominal U/S.
- Principles of endoscopy.
- Principles of G.I.T motility study.
- Liver function tests.
- Pancreatic tests

TEACHING PLAN:

*Lectures: Division of students into 3 groups
twice /week, Time from 10 to 1:30.*

Tutorials:

Practical classes

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	<u>2</u> times/week; One and half hour each between 12 to 1:00	2	2
Practical	<u>3</u> hours / week	3	3
Tutorial	<u>1</u> hours / <u>1</u> week	1	1
Total			

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA: Faculty bylaws

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge, attitudes and skills
Oral examination	To assess knowledge and attitudes
Practical examination	To assess attitudes and skills

5-C) TIME SCHEDULE: Faculty bylaws

Exam	Week
1- End of academic sciences year exam	27
2- Final written exam	106
3- Final clinical exam	107
4- Thesis dissertation submission	132 -135

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
1- Shock exams		
2- First half		
3- Mid-year		
4- Second half		
5- Final exam:	300	
a- Written	200	
b- Practical	100	
c- Oral		
6- Assignments & other activities		
Total	600	

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

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinations description:

Examination	Description
1- Shock exams	
2- First half	Objectively structured questions
3- Mid-year	
4- Second half	
5- Final exam:	
a- Written	e.g. select (MCQs) & Supply (Short essay) questions
b- Practical	e.g. Do, identify
c- Oral	e.g. How many sessions
6- Assignments & other activities	e.g. Assignments, projects, practical books etc

Total	
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6- List of references:

6.1- Basic materials.

6.2- Essential books (text books):sheilla Sherlock,cecil , Manson

6.3- Recommended books:Manuals, Secrets

6.4- Periodicals, Web sites, ... etc:

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 Specifications

Course title: PHYSIOLOGY FOR HEGAID MD

Code: HEGAID 701

Academic Year (2013– 2014)

- **Department offering the course: PHYSIOLOGY HEGAID MD**
(2013 – 2014).

- **Date of specification approval:** department council No. , date .

Faculty council No., date .../.../2013

Date of specification approval: faculty council

number : date :

A- Basic Information

- **Allocated marks:** 200 marks.

- **Course duration:** 15 weeks of teaching.

Teaching hours: 1 credit hour

- credit hours / week = 450 hrs total teaching hours.

	Hours / week	Total hours
1- Lectures	3hr/week for 15 weeks	45 hrs

B- Professional Information

1 – Overall Aims of Course

1.1.Physiology course aims at approaching to the detailed knowledge of human physiology.

1.2. facilitate understanding the clinical data for the student in the clinical practice.

1.3. develop skills associated with improved health care and health care services.

1.4. activation and improvement of the role of staff members in research projects in collaboration with research centers and other organizations.

1.5. Basic scientific knowledge essential to practice medicine at the primary level of health, dealing with health problems commonly met- with- in clinical practice with proper awareness of the social and community contexts of health care.

1.6. Basic scientific knowledge essential for establishing & maintaining good doctor/ patient relationship.

1.7. Basic scientific knowledge essential for following the rules of medical ethics .

1.8. Diagnostic, problem solving and decision making as well as communication skills necessary for proper evaluation and management of health problems.

1.9. Appropriate ethical and professional education necessary for demonstrating appropriate attitudes with patients and colleagues.

1.10. Life long learning competencies necessary for continuous professional development.

1.11. Research education as related to medical practice & post graduation development

1.12. Basic administrative skills necessary for delivery of health service.

1-13. provides appropriate ethical and professional education

1,14. demonstrate appropriate attitudes with patients and colleagues.

1.15. deal with health problems commonly met with in clinical practice with proper awareness.

– Intended learning outcomes of course (ILOs)

2.1- Knowledge and understanding:

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

2.1- List according to priority the main functions of systems, organs and cells.

2.2- Explain and describe the basic and detailed physiological processes in correct medical terms and in correct order.

2.3- Memorize important physiological definitions and laws.

2.4- understand the different mechanisms of homeostasis and how to use it in applied physiology.

2.5- provide excellence in medical education , research

2.2- Intellectual skills:

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

2.2.1- Identify deviations from the normal physiology and its effects.

2.2.2- Translate the consequences of physiological disorders into clinical manifestations and vice versa (interpret clinical manifestations into physiological data).

2.2.3- Illustrate physiological information in the form of simplified diagrams with complete data on it.

2.2.4- Interconnect different branches of physiology to each other and to other branches of medicine.

2.2.5- Analyze any physiological curve.

2.2.6- Compare homologous physiological structures and processes.

2.2.7- The ability to search, analyze and summarize updated physiological information.

2.2.8-. Describe the normal structure and function of the human body and mind at the level of its system.

2.2.9- Describe the normal structure and function of the human body and mind at the molecular, biochemical, cellular, levels (including the principles of genetics),to maintain the body homeostasis .

2.3- Professional and practical skills:

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

- 2.3.1- Perform efficiently the appropriate steps and procedures in measuring pulse , respiratory rate and arterial blood pressure.
- 2.3.2- Perform simple experimental blood tests and the use of this data in problem solving.
- 2.3.3- Read a normal ECG paper.
- 2.3.4- interpret different laboratory tests as isolated perfused heart
- 2.3.5- asses pulmonary function tests
- 2.3.6- record cardiovascular parameters in animals under various conditions.
- 2.3.7- asses skeletal and smooth muscle contraction
- 2.3.8- perform and study platelet aggregation.

2.4.- General and transferable skills

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

- 2.4.1- show discipline and appropriate manners when working in a lab and cooperation with his colleges and respect towards general property and how to handle learning facilities with care.
- 2.4.2- deal properly and cautiously in a lab.
- 2.4.3- Use the sources of biomedical information to remain current with the advances in knowledge & practice.
- 2.4.4- participate in community development and in drawing up and implementing development policies and plans.
- 2.4.5- Perform tests showing the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.
- 2.4.6- Demonstrate the macroscopic and microscopic criteria of the altered structures and functions of the body and its major organ systems that are seen in various diseases and conditions.
- 2.4.7- Perform routine technical procedures; diagnostic and therapeutic (including life support).
- 2.4.8- Apply the principles of disease surveillance and screening, communicable disease control, health promotion and health needs assessment as well as counseling practices.

3- Physiology course for postgraduates (HEGAIDical)

- Arterial blood pressure and its regulation .
- Capillary circulation .
- C.O.P .
- Venous circulation .
- E.C.G .
- Hemorrhage and shock .
- Edema .
- Respiratory function of the blood .
- Exchange of gases across the pulmonary membrane .
- Regulation of respiration .
- Hypoxia and cyanosis .
- Gastrointestinal digestion and absorption .
- Biliary secretion .
- Jaundice .
- Anemias .
- Hemostasis .
- Erythropoiesis .
- platelets .
- Leukocytes and immunity .
- pain and pain control system .
- Neurotransmitters .
- Pyramidal and extra pyramidal tracts .
- Basal ganglia .
- thyroid hormone .
- parathyroid hormone .
- Insulin hormone .
- Suprarenal cortical hormones .
- Water and electrolyte balance .
- Acid base balance .
- Body temperature .

4– Teaching and learning methods:

4.1.methods used

4.1-1.General lectures

4,1.2.-seminares

4,1.3-conferences

4-2-teaching plan

Time plain:

Item	Time schedule	Teaching hours
Lectures	1Time/week (each time 3hours)	45hours

5- Student assessment methods:

5-a) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge acquisition, including MCQs and problem solving
Oral examination	To assess understanding and stability of knowledge given, attitude and presentation.

5-b) TIME SCHEDULE:

Exam	Week
5- Final exam	at end of second term (May-June)

5-c-Assessment time schedule

Assessment 1... Written and oral

5-d-weighting system (formative or summative).

D) Weighting System:

Examination	Marks allocated	% of Total Marks
2- Final exam:		
a- Written	100	50%
b- Oral	100	50%

Total	200	100%

- Passing grades are: EXCELLENT >85%, VERY GOOD 75- <85%, GOOD 65- <75% and FAIR 60-<65%.

FORMATIVE ASSESSMENT:

- Student knows his marks after the Formative exams.

5-E) Examination description:

Examination	Type	Description
Final Examination	1. Written	written paper composed of short essay-type questions, long assay.
	3. Oral	One oral examination station with 2 staff members (10-15 minutes: 4-5 questions)

6- List of references

6.1- Course notes

Theoretical and practical books are available from faculty bookshops.

6.2- Essential books (text books)

Poul-Erik Paulev(2000): Medical Physiology And Pathophysiology Essentials and clinical problems.

6.3- Recommended books

Poul-Erik Paulev (2002):): Medical Physiology Textbook

6.3- Periodicals, Web sites, ... etc

www.jap.physiology.org.

www.physiologyonline.physiology.org/cgi/content

asmnews@asmusa.org

<http://www.phage.org/black09.htm>

Course Specification

Medical Parasitology for MD of Hepatology, Gastroentrology and infectious diseases.

**Programme on which the course is given: -
MD of Hepatology, Gastroentrology and infectious diseases.**

Major or Minor element of programmes: Subsidiary-

- Department offering the program

Hepatology, Gastroentrology and infectious diseases Department.

- Department offering the course:

Medical Parasitology Department.

- Level: First Part MD

- Date of specification approval: 4 / 1 /2013

A- Basic Information

- Title: Medical Parasitology .

-Code:HEGAID 802.

-الساعات المعتمدة: -Credit hours: One credit hour (15hrs)

Practical: 10 hrs Lectures: 10hrs

Total: 15hr

B) Professional Information:

1- Overall Aim of the Course:

**1.a Achieve national and international standing in education in the field of
Medical Parasitology.**

- 1.b Focus on: applied clinical Parasitology, diagnosis, prevention and control of the different parasitic infections.
- 1.c Be aware of basic epidemiological and environmental factors in relation to parasitic infections with special emphasis on local endemicity.
- 1.d Able to collect and update knowledge about parasites using the internet access.
- 1.e Share in campaigns to solve any emerging problem in the community.

2- Intended Learning Outcomes of Course (ILOs)

a. Knowledge and understanding:

By the end of the course, Graduate must have fluent deep knowledge to:

- a.1.** Describe parasite nomenclature, geographical distribution different host and parasitic zoonosis.
- a.2.** Identify the basic concepts and principle of parasitism.
- a.3.** Recognize pathology, pathogenesis, clinical picture and host parasite relationship of different parasite.
- a.4.** Illustrate morphology, life cycles of different parasites.
- a.5.** Classify different parasitic infections.
- a.6.** Understand diagnostic methods(direct and indirect),treatment, prevention and control of parasitic diseases.
- a.7.** Follow the main scientific advances in the field of practice.
- a.8.** Understand the fundamentals of ethical & legal practice .
- a.9.** Know the Quality standards of the practice.
- a.10.** Follow the Basics and ethics of scientific research.

ب - المهارات الذهنية :

b. Intellectual Skills:

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

- b.1.** Analyze any given data in a laboratory report or case study and relate it to causative parasite.
- b.2.** Interpret the most important signs and symptoms of important parasitic infections of endemic character.
- b.3.** Integrate different information to solve parasitological problems
- b.4.**Conduct a scientific research &/Or write scientific systematic approach to a research problem (hypothesis)
- b.5.**Evaluate risks imposed during practice.
- b.6.**Plan for professional improvement in field of parasitology .
- b.7.**Take professional decisions in wide range of parasitological situations.

b.8. Plan and implement (or supervise implementation of) enhancement & Improvement approaches to practice.

b.9. Manage discussions on basis of evidence and proofs

c. Professional and practical skills:

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

C.1. Perform different methods of urine and stool examination, thin and thick blood films, some staining procedures.

C.2. Handle laboratory equipments safely and carefully.

C.3. Illustrate different parasitic stages, preserve fresh specimens, identify infected snails and apply safety precautions.

C.4. Write and appraise reports

C.5. Evaluate methods and tools used in specialty.

C.6. Plan professional development courses to improve practice and enhance performance of juniors

d. General and transferable skills:

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

d.1. Communicate in group working and problem solving

d.2. Respects the role of the staff and co staff members regardless of degree or occupation.

d.3. Computing skills for research work.

d.4. Practice self appraisal and determines his learning needs.

d.5. Share in determination of standards for evaluation of others (e.g.: subordinates/ trainees etc.).

d.6. Use different sources of information to obtain data.

d.6. Work in teams .

d.7. Manage time effectively.

d.8. Work as team leader in situations comparable to his work level.

d.9. Learn independently and seek continuous learning.

3- Course contents:

Subject	Lecture	Hours/week	Practical
HELMINTHOLOGY	3	1x3	3
PROTZOLOGY	3	1x3	3
MEDICAL ENTOMOLOGY	2	1x2	2
Immunoparasitology	1	1x1	----

Diagnostic techniques	--	1x1	2
Applied parasitology	1	1x1	-----
Total	10	10	10(5hrs)

4- Teaching and Learning Methods:

4.1- Modified lectures.

4.2- Practical course includes: Demonstration of microscopic slides and gross specimens including jars for helminthic parasites and boxes for different arthropods and snails. Specimens are real, projector slides and graphic specimens.

4.3- Tutorials: as small group discussion of problem based learning (PBL) allowing for integration between Parasitology and other subjects. Also, for self directed learning (SDL) to encourage the graduate to read textbooks and to acquire computing skills for continuous learning.

4.4- Seminars: For recent subjects of special importance e.g. molecular biology, relevant biochemical and geno-typing of parasites, and emerging parasitic problems.

5- Student Assessment Methods:

Final assessment includes:

i) Written examination: composed of one paper (1 hour), in the form of:

1- Short essay questions 2- Drawing & labeling

3- Multiple choice questions 4- Case report

To assess knowledge , understanding and intellectual skills

ii) Practical assessment by OSPE .To assess knowledge, professional& practical skills and attitude.

iii) Oral assessment using viva cards by 2 examiners in one session. To assess knowledge, intellectual skills and attitude.

Assessment table:

Assessment	Examination	Week
1	Final written	24
2	Final oral	24
3	Final practical	24

Assessment percent:

%Final written 50

Final oral 25 %

25% Final practical

100% Total

6- List of references:

6.1- Basic Materials

- Medical Parasitology-Lecture Notes, authorized by the Department.
- Parasitology Atlas.
- CD for practical course.
- Electronic book by staff members.(under publication).

6.2- Recommended books:

- Manson's HEGAIDical Diseases, Cook GC (ed), 21st edition. London: WB Saunders, 2003.
- Introduction to Infectious and Parasitic Diseases, Including Their Cause and Manner of Transmission
by Millard Langfeld(2010)
- Immunity to Parasites. How Parasitic Infections are Controlled
2nd Edition Derek Wakelin University of Nottingham, 1996.

6.3- Websites:

- <http://www.epu-eg.com/>
- <http://www.parasitesonline.net/>
- <http://pathmicro.med.sc.edu/book/parasit-sta.htm>
- http://www.dpd.cdc.gov/dpdx/HTML/Para_Health.htm
- <http://www.malaria.org/>

7- Facilities required for teaching and learning

- Proper lecture rooms.
- Computers and data show.
- Electronic White Board and its requirements.
- Laser points.
- Well equipped laboratories.
- Binocular microscopes with planachromate lenses 6x, 10x, 40x and 100x.
- Sets of microscopic slides for demonstration.
- Centrifuges.
- Well equipped Video rooms and Video films, slide projector and projector slide sets.
- All laboratory requirements for performing the practical work (including chemicals, stains, disposable materials, glass wares, gloves and disinfectants) in sufficient amounts.

Course Specification Academic Year (2013 – 2014)

- **Course title:** Pharmacology
- **(Code):** **HEGAID 704**
- **Department offering the course:** **Clinical Pharmacology Department**
- **Academic level:** First part.
- **Date of specification approval:**

A) Basic Information:

- **Allocated marks:** 100marks
- **Course duration:** 15 weeks of teaching
- **Credit hours:** 1 hours/week = 15 total teaching hours

	Hours / week	Total hours
1- Lectures	1 h/week	15 h
2- Practical	----	----
Total	1 h/week	15h

B) Professional Information:

1- Overall Aim of the Course:

- To provide the advanced knowledge about commonly used groups of drugs affecting different body systems and their implications in therapy of diseases and health promotion.

2- Intended Learning Outcomes (ILOs):

2.1 Knowledge and understanding:

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

2.1- Knowledge and understanding:

- 2.1.1- Discuss the pharmacokinetic, pharmacodynamic and pharmacotherapeutic properties of different groups of drugs affecting body systems.
- 2.1.2- Discuss the adverse and toxic effects, and their management of commonly used groups interactions.
- 2.1.4- Define clinically relevant age, sex and genetic related variations that affect response to drugs.
- 2.1.5- Discuss the pathophysiology of diseases and explain the rational basis for the use of drugs.
- 2.1.6- Discuss the impact of preventive pharmacology in promoting health and prevent illness.
- 2.1.7- Define the principles, the indications, the relative advantage and disadvantages of various pharmacotherapy modalities.
- 2.1.8- Discuss the use of life saving drugs.

2.2. Practical and Clinical Skills

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

- 2.2.1- Design rational therapeutic strategies for both acute and chronic conditions that take into account the various variables that influence these strategies. Choose the proper drug(s) for the proper clinical situation in proper dosage.

2.3. Professional Attitude and Behavioral skills:

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

2.4. Communication skills:

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

2.5. Intellectual Skills:

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

- 2.5.1- Obtain and record a comprehensive drug history of the patient.
- 2.5.2- Document drug adverse reactions.

2.6. General and transferable Skills:

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

- 2.6.1- Demonstrate respect to all patients irrespective of their socioeconomic levels, culture or religious beliefs and use language appropriate to the patient's culture.
- 2.6.2- Provide appropriate basic drug education to the patient and his family.

2.6.3- Understand the importance of life-long self-learning and show a strong commandment to it.

3- Course contents:

	<i>Course</i>	Code	Credit hours
First part	<u>1-General pharmacology(5 hours)</u>	HEGAID 704	- 2 hours
	<ul style="list-style-type: none"> • Basic principles of pharmacokinetics. • Adverse drug reactions. • Factors affecting therapeutic dose of the drugs. • Drug interactions. 		- 2 hours
	<u>2-Autonomic pharmacology(4 hours)</u>		- 1 hours
	<ul style="list-style-type: none"> • Sympathomimetics. • Sympatholytics • Parasympathomimetics • Parasympatholytics. • Drugs affecting autonomic ganglia. 		- 5 hours
	<u>3-Autachoids(3 hours)</u>		
	<ul style="list-style-type: none"> • Histamine and antihistaminic drugs. • Serotonin and antiserotonergic drugs. • Ecosanoids & prostacyline &Leukotrienes 		- 1 hours
	<u>4-Gastrointestinal pharmacology(6 hours)</u>		- 1 hours
	<ul style="list-style-type: none"> • Drug therapy of peptic ulcer. • Drug therapy of portal hypertension. • Drug therapy of liver cell failure. • Antiemetic and prokinetic drugs. • Treatment of constipation • Treatment of diarrhea. • Hepatotoxic drugs. • LipoHEGAIDic agents. • Choloretics • Stomachics &appetitie stimulants, • Hepatotoxic drugs. 		- 1 hours

	<p>5-Vitamins & minerals & tonics & lipophilic factors & treatment of fatty liver(2 hours).</p> <p><u>6-Hormones(4 hours)</u></p> <ul style="list-style-type: none"> • Vasopressin. • Treatment of diabetes mellitus. • Corticosteroids. • Thyroid and antithyroid drugs. <p><u>7-CNS pharmacology(4 hours)</u></p> <ul style="list-style-type: none"> • Anticonvulsants. • Antidepressant drugs. • Antipsychotic drugs. • Sedative and hypnotic drugs. • Analgesic drugs. <p><u>8-Immunopharmacology(2 hours)</u></p> <ul style="list-style-type: none"> • Immunostimulant drugs.. • Immunosuppressant drugs. <p><u>9-Chemotherapy(8 hours)</u></p> <ul style="list-style-type: none"> • Antimicrobial drugs. • Antiviral drugs. • Antifungal drugs. • Antiprotozoa drugs. • Antelmintic drugs. • Anticancer drugs <p><u>10-Drugs affecting blood and blood forming organs(5 hours)</u></p> <ul style="list-style-type: none"> • Hypolipemic drugs. • Anticoagulant drugs. • Antithrombotic agents. • Antiplatelet agents • Treatment of hemorrhage. • Treatment of hemorrhage. 		
Total			15 hours

4- Teaching and learning methods:

METHODS USED:

4.1 – Lectures

4.2- Practical modules

TEACHING PLAN:

Item	Time schedule	Teaching hours	Total hours
Lectures	-1 time/ week -1 hours each	1 hours/week for 15 weeks	15
Practical	-----	-----	-----
Total			15

5- Students Assessment methods:

5.A) Attendance Criteria:

1. Practical attendance.
2. Log book.

5.B) Assessment Tools:

Tool	Purpose (ILOS)
Written examination	To assess knowledge acquisition, including MCQs and problem solving.
Oral examination	To assess understanding and stability of knowledge given, attitude and presentation.

5.C) TIME SCHEDULE:

Exam	Week
1- First part exam	After 6 months from registration for MSc. degree

5-D) Weighting system:

written exams.	50 %
Oral Examination	40 %
Semester Work	10 %
Other types of Assessment	

Total 100%

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinassions description:

First part:

Assessment(1): Written exams. (1 hr)

Assessment (2): Oral examination.

6- List of references:

6.1 Course Notes

Handouts updated administered by staff members

6.2 Essential Books (Text Books):

David E. Golan; Armen H. Tashjian; Ehrin J. and Armstrong et al.(2005): Principles of pharmacology: the pathophysiologic basis of drug [et al.], Philadelphia : Lippincott Williams & Wilkins.

6.3- Recommended Books:

GOODMAN AND GILMAN(2005): THE PHARMACOLOGICAL BASIS OF THERAPEUTICS 11th edition.

6.4- web Sites:

www.micromedex.co