



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

توصيف برنامج الدبلوم (عام 2013-2014)

PROGRAM SPECIFICATION

A) Basic information : أ. معلومات أساسية :

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

٢ - طبيعة البرنامج : (متعدد)

٣- الأقسام المسئولة عن البرنامج: **Hepatology, Gastroenterology and Infectious diseases department.**

• الأقسام المشتركة فى البرنامج: الفسيولوجيا والكيمياء الحيوية (نظري)، باكتريولوجيا وطفيليات بشرية (نظري وعملي)، باطنة عامه ، الباثولوجيا التطبيقية (نظري وعملي) ،الصحة العامة (نظري وعملي)

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

5- تاريخ إقرار البرنامج فى مجلس القسم: 2013 / 9 / 15

٦. منسق البرنامج: أ.د/ صبري أنيس عبده

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

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

B) Professional information: ب) معلومات متخصصة:

١ - الأهداف العامة للبرنامج



1- Overall Aims of the Program:

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

- 1-1** Have the recent scientific knowledge essential for the Diploma 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.

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 course the graduate should be able to:



- 2.a.1. Identify 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 the infective, inflammatory and immunological mechanisms involved in diseases of the GIT and liver.
- 2.a.6. Recognize the diagnosis and evaluation of patients with digestive diseases, taking into consideration all biological and psychosocial aspects.
- 2.a.7. Know the incidence and prevalence of common digestive disorders on the basis of locally available data.
- 2.a.8 Recognize the appropriate measures for the prevention of common digestive diseases and have basic knowledge about common communicable diseases, especially in the field of gastroenterology and hepatology, both for self protection and to foster public awareness.
- 2.a.9. Identify the indications for, contraindications against and complications of major endoscopic procedures.
- 2.a.10. Know the basic principles of disinfection of endoscopic instruments and ancillary devices.

٢. ب - القدرات الذهنية :

2.b. Intellectual Skills:-

By the end of the course 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.

problems.

2.b.3. Assess risk in professional practices in the field of Hepatology, Gastroenterology and Infectious diseases.

2.b.4. Assess the performance in the field of Hepatology, Gastroenterology and Infectious diseases and how to improve.

2.b.5. Solve hepatic and GIT problems.

2.b.6. Analyze and evaluate information.

2.b.7. 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.8. Integrate different sciences such as cardiology, critical-care medicine, oncology, surgery, pathology, and radiology to serve Hepatology, Gastroenterology and Infectious diseases department..

٢.ج . مهارات مهنية وعملية :

2.c. Practical & Professional Skills:-

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

2.c.1. Perform the basic and modern professional skills in the area of Hepatology, Gastroenterology and Infectious Diseases.

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

2.c.3. Use and develop methods and tools existing in the area of Hepatology, Gastroenterology and Infectious Diseases effeciently.

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

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

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

2.c.7. Manage different cases of Hepatology, Gastroenterology and Infectious diseases..



٢.د . مهارات عامة و منتقلة :

2.d. General and transferable skills:-

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

- 2.d.1. Communicate clearly, sensitively and effectively.
- 2.d.2. Use scientific technology in upgrading **Hepatology, Gastroenterology and Infectious diseases practice** .
- 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.
- 2.d.7. Integrate and evaluate information from a variety of sources.
- 2.d.8. Use Information and Communications Technology.

3- Academic Standards

٣ - المعايير الأكاديمية للبرنامج:

- **Academic Standards of Diploma Program of Hepatology, Gastroenterology and Infectious diseases**, approved in department council date 3 / 9 / 2013, and in faculty council date 15 / 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) , Diploma 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): program structure and contents:

أ - مدة البرنامج : 1.5 years

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

2nd part: - Two Semester (12 months).

- **Total hours of program:** 33 credit hours
- **Theoretical:** 12 credit hours
- **Practical :** 10 credit hour
- **University and faculty requirements:** 6 hours
- **Logbook:** 5 hours

ب - هيكل البرنامج:

الساعات المعتمدة	الكود	المقررات	البند
٦ ساعات	UNIV 601	للجامعة والكلية	متطلبات
٧ ساعات		يشمل الآتي:	الجزء الأول



١ ساعة	HEGAID 601	الفسولوجيا والكيمياء الحيوية (نظري)	
٢ ساعة	HEGAID 602	باكتريولوجيا وطفيليات بشرية (نظري وعلمي)	
١.٥ ساعة	HEGAID 603	الباثولوجيا التطبيقية (نظري وعلمي)	
١.٥ ساعة	HEGAID 604	الصحة العامة (نظري وعلمي)	
٥ ساعات		تسجل بها الأنشطة المختلفة مثل حضور الندوات العلمية والمؤتمرات والدورات التدريبية وإجراء أبحاث إضافية	كراسة الأنشطة
١٥ ساعة		يشمل الآتي:	الجزء الثاني:
٢ ساعة	HEGAID 605	أمراض الباطنة العامة (مقرر علمي واكلينيكي)	
١٣ ساعة	HEGAID 606	الكبد والجهاز الهضمي والأمراض المعدية (مقرر علمي واكلينيكي)	
٣٣ ساعة			الإجمالي

ج: خطة التدريس: Teaching plan

First part (one semester)

a- Compulsory courses:

Course Title	Course Code	NO. of hours per week			Total teaching hours/ 24 weeks
		Theoretical	Laboratory	Total	
		Lectures	Seminars /practical		
1- Physiology	HEGAID 601	1		1	24



2- Bacteriology	HEGAID 602	1	1	2	48
3-Pathology	HEGAID 603	2	1	3	72
4- Community medicine	HEGAID 604	2	1	3	72
Total		8	4	12	288

b- Elective courses: none

Second part (2 semesters)

a- Compulsory courses:

Course Title	Course Code	NO. of hours per week			Total teaching hours /48 weeks
		Theoretical Lectures	Laboratory /practical seminars	Total	
1-Internal Medicine	HEGAID 605	1	1	2	96
2- Hepatology, Gateroenterology & Infectious diseases, Total.	HEGAID 606	10	3	13	624
Log book activities		11	4	15	720
					5 credit

b- Elective courses: none

6- توصيف المقررات: ملحق ٧

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

(V): Program admission requirements:



****يشترط في قيد الطالب لدرجة الدبلوم:**

مادة (١٥) : شروط القيد بإحدى دبلومات التخصص

- ١- يشترط في قيد الطالب للدراسة الخاصة بإحدى دبلومات التخصص أن يكون حاصلًا على درجة البكالوريوس في الطب والجراحة من إحدى جامعات ج.م.ع أو على درجة معادلة لها من معهد علمي معترف به من الجامعة بتقدير جيد على الأقل.
- ٢- أن يكون قد أمضى السنة التدريبية أو ما يعادلها (سنة الامتياز).
- ٣- أن يتفرغ للدراسة لمدة سنة على الأقل في الجزء الثاني (فصلين دراسيين).

٨ - القواعد المنظمة لإستكمال البرنامج :

مادة (١٦) : يشترط في الطالب لنيل دبلوم التخصص :

- أ - حضور المقررات الدراسية والتدريبات الإكلينيكية والعملية بصفة مرضية طبقا للساعات المعتمدة.
- ب- أن يقوم بالعمل كطبيب مقيم أصلى أو زائر لمدة سنة على الأقل في قسم التخصص.
- ج- أن ينجح في امتحان القسمين الأول والثاني.

مادة (١٧) : يحسب التقدير النهائي للدبلوم على الوجه التالي :

- ٣٠% لامتحان القسم الأول

- ٧٠% لامتحان القسم الثاني

٩- طرق وقواعد تقييم الملتحقين بالبرنامج :

٩- Students Assessment Methods:

م	الطريقة	ما تقيسه من مخرجات التعلم المستهدفة
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To assess knowledge and understanding, & intellectual skills: From 2.a.1-2.a.6 and from 2. b.1-2.b.6	Written examination	1
To assess knowledge and understanding & intellectual skills & General and transferable skills 2. a.1-2.a.6. 2.b.1-2.b.6 2.d.1-2.d.8.	Oral examination	2
To assess knowledge and understanding & intellectual skills & practical and professional skills & General and transferable skills: 2. a.1-2.a.6 , 2.b.1-2.b.6, 2.c.1-2.c.4, 2.d.1-2.d.8.	Practical & clinical examination	3

First part

إجمالي	الدرجة				الاختبار	المقرر
	إكلينيكي	عملي	نقسي	تحريري		
200			100	100	اختبار تحريري مدته ثلاث ساعات + اختبار نقسي	الفسولوجيا والكيمياء الحيوية
300		100	50	150	اختبار تحريري مدته ثلاث ساعات + اختبار نقسي + اختبار عملي	البكتريولوجيا والطفيليات البشرية
300		100	50	150	اختبار تحريري مدته ثلاث ساعات + اختبار نقسي + اختبار عملي	الباثولوجيا التطبيقية
200			100	100	اختبار تحريري مدته ثلاث ساعات + اختبار نقسي	الصحة العامة
1000	إجمالي الدرجة					

Second part

إجمالي	الدرجة				الاختبار	المقرر
	عملي	إكلينيكي	نقسي	تحريري		
200		50	50	100	اختبار تحريري مدة ثلاث ساعات + اختبار نقسي + اختبار إكلينيكي	الباطنة العامة
	50	150	100	150	اختباران تحريريان مدة كل منهما ثلاث ساعات	الكبد والجهاز



600				+	150	+ اختبار هندي + اختبار إكلينيكي	الهضمي والأمراض المعدية
800	إجمالي الدرجة						

١٠ - طرق تقييم البرنامج :

١٠- Evaluation of Program:

Evaluator	Tools	sample
Internal evaluator (s) مقيم داخلي	Report	1-2 Report
External Evaluator (s) مقيم 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

المستول عن البرنامج : أ.د. صبري أنيس

التوقيع

التاريخ : September, 2013

Program Coordinator:

Name Dr Prof. Sabry Anis Signature.....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

ملحق (١): وثيقة المعايير الأكاديمية المرجعية لبرنامج الدبلوما



Academic Reference Standards (ARS) for Diploma Degree in Hepatology, Gastroenterology and Infectious diseases

1. Graduate Attributes:

The graduate of Diploma degree should be capable of:

- 1.1. Apply specialized knowledge acquired from the field of Hepatology, Gastroenterology and Infectious diseases in his/her professional practices.
- 1.2. Identify professional problems and propose solutions.
- 1.3. Master professional skills and use appropriate technological means in professional practices.
- 1.4. Communicate with and lead work teams through professional systematized work.
- 1.5. Make decisions in the light of available information.
- 1.6. Employ the available resources efficiently.
- 1.7. Be aware of his/her role in community development and preservation of the environment.
- 1.8. Reflect the commitment to act with integrity, and the rules of profession and accept questionability.
- 1.9. percept the necessity of self development and continuous learning.

2. Academic Standards:

2.1. Knowledge and understanding:



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

- 2.1.1. Theories, fundamentals and specialized knowledge in the field of learning of Hepatology, Gastroenterology and Infectious diseases as well as the sciences relevant to professional exercise.
- 2.1.2. Ethical and legal principles of professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
- 2.1.3. The principles and fundamentals of quality in professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
- 2.1.4. Impact of professional practice on the environment and work to preserve and maintain the environment.

2.2. Intellectual skills:

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

- 2.2.1. Identify and analyze problems in the field of Hepatology, Gastroenterology and Infectious diseases and rank them according to their priorities.
- 2.2.2. Solve specialized problems in the area of his/her profession.
- 2.2.3. Analytically read research and issues related to Hepatology, Gastroenterology and Infectious diseases.
- 2.2.4. Assess risks in professional practices.



2.2.5. Make professional decisions in the light of available information.

2.3. Practical/Professional skills

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

2.3.1. Apply professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.

2.3.2. Write professional reports.

2.4. Communication and transferable skills:

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

2.4.1. Communicate effectively using all kinds of communication methods.

2.4.2. Use information technology in a manner that serves professional practice.

2.4.3. Evaluate self and to identify personal learning needs.

2.4.4. Use different sources to obtain information and knowledge.

2.4.5. Work in team and manage time.

2.4.6. Lead a team in familiar professional contexts.

2.4.7. Self-learn and continuously.

الاجتماع مجلس القسم سبتمبر ٢٠١٣



ئيس مجلس القسم

العماد مجلس الكلية

٢٠١٣/٩/١٥

ملحق 2: المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة
برنامج دبلومه الدراسات العليا

•موصفات الخريج

خريج برامج دبلومه الدراسات العليا فى أى تخصص يجب أن يكون قادرا على :



١-١ تطبيق المعارف المتخصصة التي اكتسبها في ممارسته المهنية .

٢-١ تحديد المشكلات المهنية واقتراح حلول لها.

٣-١ إتقان المهارات المهنية واستخدام الوسائل التكنولوجية المناسبة في ممارسته المهنية .

٤-١ التواصل وقيادة فرق العمل من خلال العمل المهني المنظومي

٥-١ اتخاذ القرار في ضوء المعلوما المتاحة

٦-١ توظيف الموارد المتاحة بكفاءة

٧-١ الوعي بدوره في تنمية المجتمع والحفاظ على البيئة

٨-١ التصرف بما يعكس الالتزام بالنزاهة والمصداقية وقواعد المهنة وتقبل المسائلة والمحاسبة

٩-١ إدراك ضرورة تنمية ذاته والانخراط في التعليم المستمر

2- المعايير القياسية العامة :

1-2 المعرفة والفهم:

بانتهاج دراسة برامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على فهم واستيعاب كل من :

1-1-2 النظريات والاساسيات والمعارف المتخصصة في مجال التعلم وكذا العلوم ذات العلاقة بممارسته المهنية

2-1-2 المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص

3-1-2 مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص

4-1-2 تأثير لممارسة المهنية على البيئة والعمل على الحفاظ على البيئة وصيانتها

2-2 المهارات الذهنية :

بانتهاج دراسة برنامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على :

1-2-2 تحديد وتحليل المشاكل في مجال التخصص وترتيبها وفقا لأولوياتها

2-2-2 حل المشاكل المتخصصة في مجال مهنته

3-2-2 القراءة التحليلية للأبحاث والمواضيع ذات العلاقة بالتخصص

4-2-2 تقييم المخاطر في الممارسات المهنية



5-2-2 اتخاذ القرارات المهنية في ضوء المعلومات المتاحة

3-2 المهارات المهنية :

بانتهاة دراسة برنامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على :

1-3-2 تطبيق المهارات المهنية في مجال التخصص

2-3-2 كتابة التقارير المهنية

4-2 المهارات العامة والمنتقلة:

بانتهاة دراسة برنامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على :

1-4-2 التواصل الفعال بأنواعه المختلفة

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

3-4-2 التقييم الذاتي وتحديد احتياجاته التعليمية الشخصية

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

5-4-2 العمل في فريق وإدارة الوقت

6-4-2 قيادة فريق في سياقات مهنية مألوفة

7-4-2 التعلم الذاتي والمستمر

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 pro-active 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:

	Teaching/learning methods and strategies
<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 between genes and the environment associated with diseases of the GIT and liver. 7. disorders of nutrition and metabolism at the 	<p>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.</p> <p>Throughout, students are encouraged to undertake independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject. Directed learning in the form of</p>



<p>organ, cellular and molecular level.</p> <p>8. infective, inflammatory and immunological mechanisms involved in diseases of the GIT and liver.</p> <p>9. the development of neoplasia in the GIT and liver, and the rationale for various therapies.</p>	<p>small group 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.</p> <p>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.</p>
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1. Skills and other Attributes

<p>Intellectual Skills (lateral and critical thinking, logic): Be able to:</p> <ol style="list-style-type: none"> 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 	<p>Teaching/learning methods and strategies</p> <p>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.</p> <p>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.</p> <p>Assessment is through coursework, unseen written examinations and project work.</p>
<p>1. learn effectively for the purpose of continuing professional development.</p>	<p>group project work.</p> <p>3. is developed through tutored dissertation and the research project.</p> <p>4. is taught during the Foundation course and developed during projects and other coursework activities and individual</p>



	<p>learning.</p> <p>5. is developed throughout the course within a framework of staged coursework deadlines and examination system.</p> <p>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.</p> <p>1. is assessed through coursework, presentations and written examinations.</p> <p>2. to 4. are assessed through coursework, including project work.</p> <p>3. is also assessed through written examinations.</p>
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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 الدبلوما)
<i>The graduate of Diploma degree should be capable of:</i>	خريج برامج دبلومه الدراسات العليا فى أى تخصص يجب أن يكون قادرا على :
1-1 Apply specialized knowledge acquired from the field of Hepatology, Gastroenterology and Infectious diseases in his/her professional practices.	١-١ تطبيق المعارف المتخصصة التى اكتسبها فى ممارسته المهنية .
1-2 Identify professional problems and propose solutions.	٢-١ تحديد المشكلات المهنية واقترح حلولاً لها.



1-3 Master professional skills and use appropriate technological means in professional practices.	٣-١ إتقان المهارات المهنية واستخدام الوسائل التكنولوجية المناسبة في ممارسته المهنية .
1-4 Communicate with and lead work teams through professional systematized work.	٤-١ التواصل وقيادة فرق العمل من خلال العمل المهني المنظومي
1-5 Make decisions in the light of available information.	٥-١ اتخاذ القرار في ضوء المعلوما المتاحة
1-6 Employ the available resources efficiently.	٦-١ توظيف الموارد المتاحة بكفاءة
1-7 Be aware of his/her role in community development and preservation of the environment.	٧-١ الوعي بدوره في تنمية المجتمع والحفاظ على البيئة
1-8 Reflect the commitment to act with integrity, and the rules of profession and accept questionability.	٨-١ التصرف بما يعكس الالتزام بالنزاهة والمصداقية وقواعد المهنة وتقبل المسائلة والمحاسبة
1-9 percept the necessity of self development and continuous learning.	٩-١ إدراك ضرورة تنمية ذاته والانخراط في التعليم المستمر

أ - المعرفة والفهم:

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) للدراسات العليا (درجة الدبلوما)
<i>By the end of Diploma program, the graduate should recognize and understand the followings.</i>	بانتهاج دراسة برامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على فهم واستيعاب كل من:
2-1-1 Theories, fundamentals and specialized knowled in the field of learning of Hepatology, Gastroenterology	1-1-2 النظريات والاساسيات والمعارف المتخصصة في مجال التعلم وكذا العلوم ذات العلاقة بممارسته المهنية



Infectious diseases as well as the sciences relevant to professional exercise.	
2-1-2 Ethical and legal principles of professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.	2-1-2 المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص
2-1-3 The principles and fundamentals of quality in professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.	3-1-2 مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص
2-1-4 Impact of professional practice on the environment work to preserve and maintain the environment.	4-1-2 تأثير لممارسة المهنة على البيئة والعمل على الحفاظ على البيئة وصيانتها

ب - القدرات الذهنية :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) للدراسات العليا (درجة الدبلوما)
<i>By the end of Diploma program, graduate should be able to recognize the followings.</i>	بانتهاؤ دراسة برنامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على :
2-2-1 Identify and analyze problems in the field of Hepatology, Gastroenterology and Infectious diseases rank them according to their priorities.	1-2-2 تحديد وتحليل المشاكل في مجال التخصص وترتيبها وفقا لأولوياتها



2-2-2 Solve specialized problems in the area of his/h profession.	2-2-2 حل المشاكل المتخصصة في مجال مهنته
2-2-3 Analytically read research and issues related to Hepatology, Gastroenterology and Infectious diseases	3-2-2 القراءة التحليلية للأبحاث والمواضيع ذات العلاقة بالتخصص
2-2-4 Assess risks in professional practices.	4-2-2 تقييم المخاطر في الممارسات المهنية
2-2-5 Make professional decisions in the light of available information.	5-2-2 اتخاذ القرارات المهنية في ضوء المعلومات المتاحة

ج. مهارات مهنية وعملية :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) للدراسات العليا (درجة الدبلوما)
<i>By the end of Diploma program, graduate should accept the followings skills.</i>	بانتهاج دراسة برنامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على :
2-3-1 Apply professional skills in the field of Hepatology, Gastroenterology and Infectious diseases	2-3-1 تطبيق المهارات المهنية في مجال التخصص
2-3-2 Write professional reports.	2-3-2 كتابة التقارير المهنية



د . مهارات عامة و منتقلة :

المعايير الأكاديمية للبرنامج	المعايير القياسية العامة (Generic) للدراسات العليا (درجة الدبلوما)
<i>By the end of Diploma program, graduate should accept the following skills.</i>	بانتهاؤ دراسة برنامج دبلومه الدراسات العليا يجب أن يكون الخريج قادرا على :
2-4-1 Communicate effectively using all kinds of communication methods.	1-4-2 التواصل الفعال بأنواعه المختلفة
2-4-2 Use information technology in a manner that serves professional practice.	2-4-2 استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية
2-4-3 Evaluate self and to identify personal learning needs.	3-4-2 التقييم الذاتي وتحديد احتياجاته التعليمية الشخصية
2-4-4 Use different sources to obtain information and knowledge.	4-4-2 استخدام المصادر المختلفة للحصول على المعلومات والمعارف
2-4-5 Work in team and manage time.	5-4-2 العمل في فريق وإدارة الوقت
2-4-6 Lead a team in familiar professional contexts.	6-4-2 قيادة فريق في سياقات مهنية مألوفة



2-4-7 Self-learn and continuously.

7-4-2 التعلم الذاتي والمستمر

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

أهداف البرنامج	المعايير الأكاديمية للبرنامج (مواصفات الخريج):
1-1	1-1 Apply specialized knowledge acquired from the field of Hepatology, Gastroenterology and Infectious diseases in his/her professional practices.
1-2	1-2 Identify professional problems and propose solutions.
1-3	1-3 Master professional skills and use appropriate technological means in professional practices.
1-4	1-4 Communicate with and lead work teams through professional systematized work.
1-5	1-5 Make decisions in the light of available information.
1-6	1-6 Employ the available resources efficiently.
1-7	1-7 Be aware of his/her role in community development and preservation of the environment.
1-8	1-8 Reflect the commitment to act with integrity, and the rules of profession and accept questionability.
1-9	1-9 percept the necessity of self development and continuous learning.



نواتج تعلم البرنامج										المعايير الأكاديمية للبرنامج
المعرفة و الفهم										
2.a.1.	2.a.2.	2.a.3.	2.a.4.	2.a.5.	2.a.6.	2.a.7.	2.a.8.	2.a.9.	2.a.10.	
	√	√	√	√						2-1-1 Theories, fundamentals and specialized knowledge in the field of learning of Hepatology, Gastroenterology and Infectious diseases as well as the sciences relevant to professional exercise.



			√		√		√			2-1-2 Ethical and legal principles of professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
	√				√		√			2-1-3 The principles and fundamentals of quality in professional practice in the field of Hepatology, Gastroenterology and Infectious diseases.
		√	√	√						2-1-4 Impact of professional practice on the environment and work to preserve and maintain the environment.

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 Identify and analyze problems in the field of Hepatology, Gastroenterology and Infectious diseases and rank them according to their priorities.
		√					√	√		2-2-2 Solve specialized problems in the area of his/her profession.
			√		√	√				2-2-3 Analytically read research and issues



										related to Hepatology, Gastroenterology and Infectious diseases.
		√			√	√				2-2-4 Assess risks in professional practices.
			√	√						2-2-5 Make professional decisions in the light of available information.

نواتج تعلم البرنامج										المعايير الأكاديمية للبرنامج المهارات المهنية	
Practical/Professional skills											
				2.c.7	2.c.6	2.c.5	2.c.4	2.c.3	2.c.2.		2.c.1.
						√	√			√	2-3-1 Apply professional skills in the field of Hepatology, Gastroenterology and Infectious diseases.
				√	√	√	√	√	√		2-3-2 Write professional reports.

نواتج تعلم البرنامج										المعايير الأكاديمية للبرنامج
General and transferable skill										



المهارات العامة والمنتقلة									
2.d.1.	2.d.2.	2.d.3.	2.d.4.	2.d.5.	2.d.6.	2.d.7.	2.d.8.		
			√	√	√				2-4-1 Communicate effectively using all kinds of communication methods.
	√	√							2-4-2 Use information technology in a manner that serves professional practice.
		√		√		√			2-4-3 Evaluate self and to identify personal learning needs.
	√		√						2-4-4 Use different sources to obtain information and knowledge.
		√		√		√			2-4-5 Work in team and manage time.
			√	√			√		2-4-6 Lead a team in familiar professional contexts.
				√			√		2-4-7 Self-learn and continuously.



ملحق (6) مصفوفة المعارف والمهارات للبرنامج الدراسي

مهارات ذهنية								المعارف								المحتويات الرئيسية للبرنامج		
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.	2a1
												√		√				Physiology & Biochemistry
			√	√				√					√					Bacteriology & Parasitology
													√	√				Pathology
					√					√	√					√		Community medicine
√						√						√						Internal Medicine
√	√	√	√	√		√	√		√						√		√	Hepatology, Gastroenterology & infectious diseases



مهارات عامة							مهارات مهنية							المحتويات الرئيسية للبرنامج
2d7	2.d.6.	2.d.5.	2.d.4.	2.d.3.	2.d.2.	2d1	2.c.7.	2.c.6.	2.c.5.	2.c.4.	2.c.3.	2.c.2.	2c1	
									√					Physiology&Biochemistry
									√					Bacteriology&Parasitology
									√					Pathology
√				√	√									Community medicine
			√			√			√			√		Internal Medicine
√	√	√	√	√	√	√	√	√		√	√	√	√	Hepatology, Gastroenterology &infectious diseases

توصيف المقررات

Program courses

First part
1- Physiology
2-Biochemistry
3- Bacteriology
4-Parasitology
5-Pathology
6- Community medicine



Second part

1- Internal Medicine

2- Hepatology, Gastroenterology and infectious diseases

توصيف مقرر

الكبد والجهاز الهضمي والأمراض المعدية (مقرر علمي وإكلينيكي)

HEGAID 606 (Code)

Academic Year (2013 – 2014)

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

Academic year of Diploma of Hepatology , Gastroenterology and Infectious diseases

A) Basic Information:

- **Teaching hours:** 13 credit hours



B) Professional Information:

1- Overall Aims of the Program:

The overall aims of the course the students will be able to:

1. Apply skills necessary for proper diagnosis and management of patients in the field of HEGAID including diagnostic, problem solving and decision making skills.
2. Perform 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.
3. Interpret 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 students should be able to:

- 2.a.1 Discuss different Hepatic disorders as regarding pathogenesis, clinical picture, diagnosis and management.
- 2.a.2 Classify GIT disorders and describe clinical picture, investigation and management options.
- 2.a.3 Mention Infectious diseases in the Hepatology , Gastroenterology and Infectious diseases field and discuss their clinical picture, diagnosis and management.



2.b. Intellectual Skills:-

By the end of the course the students 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 Evaluate medical reports related to Hepatology , Gastroenterology and Infectious diseases.

2.c. Practical & Clinical Skills:-

By the end of the course the student 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. Use 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.7. Perform efficiently some Endoscopic skills.
- 2.c.7. Examine and diagnose patients in Hepatology , Gastroenterology and Infectious practice.

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 available resources to get data and knowledge.
- 2.d.3. Work independently and as part of a team.
- 2.d.4. Integrate and evaluate information from a variety of sources.



3- Course contents:

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Practical (hrs)	Total (hrs)	% of Total
1- Hepatic disorders	2			45	12.5
2- GIT disorders	2			45	12.5
3- Infectious diseases	3			90	25
4- Clinical	2	2		180	25
5- Applied Research	1	1		180	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. Achalasia.**
- 5. Esophageal cancer.**
- 6. Barrett's esophagus..**
- 7. Stomach**
- 8. Gastritis**
- 9. Gastric cancer.**
- 10. Helicobacter pylori and peptic ulcer disease.**
- 11. Liver And Biliary Tract Disorders**



- 12.Evaluation of abnormal livers tests.**
- 13.Viral hepatitis.**
- 14.Antiviral therapy for hepatitis C infection.**
- 15.Antiviral therapy for hepatitis B.**
- 16.Autoimmune hepatitis: diagnosis and pathogenesis.**
- 17.Autoimmune hepatitis: treatment.**
- 18.Primary biliray cirrhosis and primary sclerosing cholangitis.**
- 19.Hepatitis vaccines and immunoprophylaxis.**
- 20.Pregnancy and liver disease..**
- 21.Evaluation of focal liver disease.**
- 22.Drug-induced liver disease.**
- 23.Alcoholic liver disease.**
- 24.Vascular liver disease.**
- 25.Nonalcoholic fatty liver disease.**
- 26.liver transplantation.**
- 27.Ascites.**
- 28.Liver abscess.**
- 29.Inheritable forms of liver disease.**
- 30.Gallbladder: Stones, Sludge, and polyps.**
- 31..Panceratic Disorders**
- 32.Acute pancreatitis.**
- 33.Chronic pancreatitis.**
- 34.Pancreatic cancer..**
- 35.Small And Large Boewel Disorders.**
- 36.Crohn's disease.**
- 37.Ulcerative colitis.**



38. Eosinophilic gastroenteritis.
39. Colon Disorders
40. Colorectal cancer and colon cancer screening.
41. Constipation and fecal incontinence.
42. Diverticulitis..
43. Genral Symptoms And Conditions
44. Upper gastrointestinal tract hemorrhage.
45. Lower gastrointestinal tract bleeding.
46. Occult and obscure gastrointestinal bleeding.
47. Evaluation of acute abdominal pain.
48. Evaluation of acute diarrhea.
49. Chronic diarrhea.
50. Aids and gastrointestinal tract...
- 51.13. Endoscopic cancer screening and surveillance..
52. Gastrointestinal Radiology
53. Endoscopic ultrasound.
54. Advanced therapeutic endoscopy.

B: Infectious diseases

1. Introduction to microbial diseases.
2. The febrile patient
3. The pathogenesis of fever
4. The acute phase response
5. The compromised host
6. Prevention and control of hospital-acquired infections
7. Advice to travelers
8. Introduction to bacterial diseases



- 9. Antibacterial therapy**
- 10. Pneumococcal pneumonia**
- 11. Streptococcal infections**
- 12. Rheumatic fever**
- 13. Infective endocarditic**
- 14. Staphylococcal infections**
- 15. Bacterial meningitis**
- 16. Meningococcal infections**
- 17. Whooping cough (pertussis)**
- 18. Diphtheria**
- 19. Botulism**
- 20. Tetanus**
- 21. Introduction to enteric infections**
- 22. Typhoid fever**
- 23. Salmonella infections other than typhoid fever**
- 24. Shigellosis**
- 25. Cholera**
- 26. The diarrhea of travelers**
- 27. yersinia infections**
- 28. Tularemia**
- 29. Anthrax**
- 30. Action mycosis**
- 31. Nocardiosis**
- 32. Brucellosis**
- 33. Tuberculosis**
- 34. Leprosy (hansen's disease)**



- 35. Gonococcal infections**
- 36. Relapsing fever**
- 37. Lyme disease**
- 38. Leptospirosis**
- 39. Rickettsioses**
- 40. Zoonosis**
- 41. Introduction to viral diseases**
- 42. Influenza**
- 43. Adenovirus diseases**
- 44. Measles**
- 45. Rubella (german measles)**
- 46. Varicella (chickenpox, shingles)**
- 47. Mumps**
- 48. Herpes simplex virus infections**
- 49. Infections associated with human cytomegalovirus**
- 50. Infectious mononucleosis: epstein-barr virus infection**
- 51. Retroviruses other than hiv**
- 52. Enteroviruses**
- 53. Viral gastroenteritis**
- 54. Introduction to hemorrhagic fever viruses**
- 55. Candidiasis**
- 56. Aspergillosis**
- 57. Pneumocystis carinii pneumonia**
- 58. Introduction to protozoan and helminthic diseases**
- 59. Malaria**
- 60. African trypanosomiasis (sleeping sickness)**



61. American trypanosomiasis (chagas' disease)
62. Leishmaniasis
63. Toxoplasmosis
64. Cryptosporidiosis
65. Giardiasis
66. Amebiasis
67. Other protozoan diseases
68. Cestode infections
69. Schistosomiasis (bilharziasis)
70. Liver, intestinal, and lung fluke infections
71. Nematode infections
72. Filariasis

C: Practical Topics

1. Imaging of G.I.T.
2. Abdominal U/S.
3. Principles of endoscopy.
4. Principles of G.I.T motility study.
5. Liver function tests.
6. Pancreatic tests

5- Students Assessment methods:

Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding- intellectual skills



Oral examination	To assess knowledge & understanding- intellectual –general and transferable skills
Practical examination	To assess knowledge & understanding- intellectual –practical and professional- general and transferable skills

TIME SCHEDULE: Final exam in May or November

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.

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:

رئيس القسم العلمي: أ.د. صبري أنيس

أستاذ المادة: أ.د. صبري أنيس



Course Specification

Course title: General medicine for Diploma degree of HEGAIDI
Code: Med 0713

Academic Year (2013 – 2014)

A) Basic Information:

- **Teaching hours: 2 credit hours** hours

Professional Information:

1-Overall aims of the course:

- To provide good basic scientific knowledge about common medical diseases in studied medical branches (cardiovascular-respiratory-gastrointestinal-renal-endocrine-CNS....)
- To learn the student how to deal ethically with the patient and how to protect him self of infection
- To accept sufficient clinical skills how to take history of the patient how to examine different systems of the body with stress on data help in diagnosis.
- To explain how to use this collected data in diagnose the case, use approach schedules ,determine drugs can be used with know its complication.avoid drugs interaction

- **2-Intended learning outcomes of course (ILOS):**



2.a-Knowledge and understanding :

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

2.a.1. **Recognize** the genetic bases and its association with medical diseases its discover and possible prevention or therapy .by gene therapy

2.a.2 **Identify** the helpful terms and details of anatomy, physiology, and pathophysiology of different medical diseases

2.a.3 **Identify** incidence ,prevalence ,racial,environmental effect on the medical disease

2.a.4. **Explain** the relation between age and medical diseases (diseases common in each age/how age may effect progression of certain diseases

2.a.5 . **Explain** causes ;clinical picture of different medical diseases in different medical branches

Cardiovascular ,Respiratory ,Gastrointestinal ,Rheumatology.,Endocrine,infection

Neurological ,chest.

2.a.6 **Identify** the microbiological bases for medical diseases especially infectious diseases routes of infection methods of transfer

2.a.7 **Recognise the** general and special method of prevention and control

2.a.8 **Recognise** different investigation that can be done for each symptom to reach the cause

2.a.9 **Identify** the approach schedule of possible symptoms and how to make differential diagnosis.

2.a.10 **Explain** the different line s of treatment for eash disease the sequence of treatment /doses to begin with /determine the time to add other drugs

2.a.11 **Recognise** pharmacological bases for diferrent drugs

2.a.12 **Explain** side effects and drugs interaction which may harm the patient more than the disease its self

2.a.13. **Recognise** the principles of oncology medicine how to stabilize the patient and refer him to appropriate site to start treatment .

2.a.14 **Explain** common drugs which have narrow therapeutic range and explain how to deal if the toxicity occur and their anti dotes.

2.b.- practical and clinical skills : .

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

2.b.1 **perform** methods ,technique to assess vital signs how get benefit in diagnosis .

2.b.2 **Demonstrate** the steps of clinical assestment to the patient (history taking – general examination – regional examination).



2.b.3 **Demonstrate** the general principles of taking history how to analysis different symptoms in way help the physician to diagnose

2.b.4 **Perform** appropriate sterile technique,

2.b.5 **Demonstrate** samples taking technique and its useful in diagnosis

2.b.6 **Demonstrate** different signs that may help in diagnosis

2.b.7 **Recognize** the effect of different diseases and variability occur in general examination

2.b.8 **perform** *inspection –palpation –percussion-ascultation to different system in the body (cardiovascular system –respiratory- gastroenterology – hepatic- endocrine- kidney –rheumatology-neurology).*

2.b.9 **Recognize** urgent life threatening diseases and how deal with it rapidly.

2.b.10 **Recognize** the changes in the body vital sign s may occur in association with different drugs toxic level or poison taking

2.c. Professional Attitude and Behavioral skills

2.c.1 **Respects** to all patients irrespective of their socioeconomic levels, culture or religious believes.

2.c.2 **Respects** appropriate language to establish good patient-physician relationship.

2.c.3 **Reflect** critically on their own performance , to recognize personal limitations regarding skills and knowledge to refer patients to appropriate health facility at the appropriate stage.

2.c.4 **Demonstrate** respects for the rights of patients and their families to full understanding, and involve them in management decision.

2.d. Communication skills:

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

2.d.1. **Communicate** clearly, sensitively and effectively with patients and their relatives.

2.d.2. **Establish** good relations with other health care professionals regardless their degrees or rank.

2.d.3. **Communicate** effectively with individuals regardless of their social, cultural, ethnic backgrounds, or their disabilities.



2.d.4. **Cope up** with difficult situations as breaking news.

2.e -Intellectual skills:

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

2.e.1.-**Analyze** symptoms & signs and construct a differential diagnosis for common presenting complaints.

2.e.2.- **Recognize** an appropriate diagnostic plan for evaluation of common presenting complaints

2.e.3 **Interpret** the results of commonly used diagnostic procedures.

2.e.4. **Analyze** risk factors for disease processes and injury the appropriate diagnostic, preventive, and therapeutic interventions

2.e.5 **Analyze** the indications and logistics of referring patients to higher levels of experience or specialization as a principle for the family doctor(GP)

2.e.6. **Interpret** scenario of treatment plan, incorporating his knowledge, best available evidence, and patient's preferences in a cost effective manner

2.f - General and transferable skills

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

2.f.1- **Establish** rapport and trust with the patient

2.f.2- **Explain** to the patients and their relatives the nature of illness, the diagnostic and therapeutic options

2.f.3 **Present** fully the patient's history and examination findings, list the clinical problems and present relevant material clearly, and legibly, to use when needed.

2.f.4 - **Use** the sources of information and communication technology to remain current with advances in knowledge and practice

3- Contents:

Blood

Anemia

bleeding disorder

platelet disorder

D.V.T

DIC

Chest

bronchial asthma

Pleural effusion

pulmonary embolism



suppurative lung diseases

Cardiology:-

Heart failure
Pericardil effusion
Hypertension
arterial fibrillation
valvuler heart disease

Endocrine

Diabetes mellitus
thyroid disease
panhypopituitarism

Kidney

Hematuria
Nephrotic
Proteinuria
Renal failure
acid base balance

HEGAIDical medicine

Typhoid
Brucella
fever of unknown original

Collagen disorder

systemic lupus
anti phspholipid

4- Teaching and learning methods:

METHODS USED:

1. Modified lectures.
2. Small group discussions: models, case study.
3. Self-learning.
4. Clinical rounds.



TEACHING PLAN:

Lectures: 6hs/week

Practical classes: 15hs/week .

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	5 Times/ week (each time 1.25 hour)	6 hours	216
Clinical classes	5 Times/ week (each time 3 hour)	15 hours	360
Total		21 hours	576

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA:

1. Practical attendance
2. Small group attendance
3. Lectures

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)	Evidence
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1. Written examination	To assess knowledge acquisition including MCQs case solving. True or false Short essays 2.a.1-----2.a2..----- 2.a.3.---- 2.a4. ---- 2.a.5 2.a.6 2.a.7 2.a.8 2.a.9 2.a.10 2.a.11 2.a.12 2.a.13 2.a.14 2.e. 1 2.e.2 2.e.3 2.e.4 2.e.5 2.e.6	Attached module of examination
2. Oral examination	To assess understanding and stability of knowledge given, attitude , presentation and how to express his knowledge. 2.a.1-----2.a2..----- 2.a.3.---- 2.a4. ---- 2.a.5 2.a.6 2.a.7 2.a.8 2.a.9 2.a.10 2.a.11 2.a.12 2.a.13 2.a.14 2.e. 1 2.e.2 2.e.3 2.e.4 2.e.5 2.e.6	Viva cards



3.practical examination	To assess clinical skills , how to examine the patient and how to reach the diagnosis as easy and accurate as 2.b.1.----2.b.2 2.b 3.....2.b.4 2.c.1 2.c.2 2.c.3 2.c.4 2.d.1 2.d.2 2.d.3 2.d.4 2.e. 1 2.e.2 2.e.3 2.e.4 2.e.5 2.e.6 2.f.1 2.f.2 2.f 3 2.f.4	Practical report
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5-C) Assessment schedule

Assessment 1 20% examination ...Hold on December 2013

D) Weighting System:

2- Final exam: a- Written b- Oralc,clinical		
--	--	--

- The minimum passing score is **540** marks, provided that at least 30%%marks are obtained in the final written examination.
- Passing grades are:
 1. Excellent: > 85%
 2. Very good: 75-85%
 3. Good: 65-75%
 4. Fair: 60-65%
 - 5.

FORMATIVE ASSESSMENT:



2- Final exam:	
Written	To assess knowledge acquisition including MCQs case solving. True or false Short essays
Clinical	To assess clinical skills , how to examine the patient and how to reach the diagnosis as easy and accurate as To assess ability of the student to use Professional Attitude and Behavioral skills ,general skills, communication skills .
oral	To assess understanding and stability of knowledge given, attitude , presentation and how to express his knowledge

6- List of references:

6.1- Basic materials:

Hand out of lectures prepared by staff

6.2- Essential books (text books):

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1-.Davidson ,s principles &practice of medicine 21edition .

2-harrison 's principles of internal medicine 18 Edition

6.3 - Periodicals, Web sites, etc:

- <http://www.pubmed.com>.

- <http://sciencedirect.com>.



7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

Department lectures halls:

5

skill lab room 1

black and white boards

faculty library

in patient rooms

data show

Course Specifications

Course title: First Part of Diploma Degree, Hepatology, Gastroenterology & Infectious Diseases.

(Code): HEGAID 501.

Academic Year: 2013 – 2014.

- **Department offering the course:** Medical Biochemistry.
- **Date of specification approval:** 15/12/2013, **department council** no.150.

A) Basic Information:



- **Allocated marks:** 50 marks.
- **Course duration:** 13 weeks of teaching
- **Teaching hours:** $\frac{1}{2}$ credit hour = 7 $\frac{1}{2}$ total teaching hours.

Total hours	Hours / week	
6	1 / 6	1- Lectures
1.5	1 / 3	2- Tutorials
-----	-----	3- Practical
-----	-----	4- Others
7.5		Total

B) Professional Information:

1. Overall Aim of the Course:

- Provide all students with a broad education in fundamental aspects of medical biochemistry and molecular biology;
- Provide a sound knowledge and understanding of the biochemical importance of macro-, micronutrients, hormones and enzymes;
- To enable the student to illustrate and/or describe the metabolic pathways of macronutrients and nucleotides;
- Illustrate the contribution of the organs in metabolic process under different physiological circumstances;
- To enable the student to understand the bioenergetics of the concerned metabolic pathways under different physiological circumstances and their integrator regulations with other working metabolic pathways;



- Enable students to point out and understand the biochemical and the molecular basis of a range of diseases, their diagnosis and the development of therapies;
- Acquire a critical understanding of the basic principles of molecular biology, different methods used in diagnosis of diseases ;
- Be familiar with biotechnology methods and their clinical implications and be able to explain some detailed examples;
- Be able to devise and evaluate suitable experimental methods for the investigation of relevant areas of biochemistry and molecular biology;
- To enable the student to describe major body fluids composition and their clinical impact;
- Develop through a flexible and progressive structure, a range of subject-specific and transferable skills, including practical laboratory skills, self-management, information retrieval, communication and presentation skills, working with others, decision making and meeting deadlines, that equip students for future employment.

2- Intended Learning Outcomes (ILOs):

2.1- Knowledge and understanding:

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

2.1.1. Describe the main metabolic pathways of the three main dietary sources of energy: carbohydrates, fats and proteins, their digestion absorption, their oxidation to release energy.

2.1.2 Understand the regulation of these pathways and the integration of their metabolism



2.1.3 point-out biochemical alteration in related metabolic disorders.

2.1.4 Understand the role of vitamins and enzymes required for catalysis of these processes, in addition to their deficiency manifestations.

2.1.5 Describe the contribution of certain tissues like liver, kidney and muscles to metabolism in health and disease.

2.1.6. Understand the metabolism of the major minerals and trace elements, their functions and alterations in metabolic processes due to deficiency or excess of these elements.

2.1.7. Acquire knowledge about nucleic acid metabolism with special emphasis on their role in protein synthesis.

2.1.8 Understand the general principles of genetic engineering and how may this be used for the diagnosis and management of diseases.

2.1.9 Describe the components of some body fluids e.g. blood and urine.

2.2. Intellectual skills:

2.2.1 Analyze pathological glucose tolerance curve.

2.2.2 Interpret medical laboratory reports.

2.2.3 Solve problems related to metabolic disturbances in a given case study report.

2.3. General and transferable skills:

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

2.4.1. Communicate properly with the staff members as well as with each other.

2.4.2. Work effectively in groups.

2.4.4. Use available resources to get data& knowledge.



3- Course contents:

% of Total	Total (hrs)	Tutorials (hrs)	Lectures (hrs)	Subject
	½	½	---	Blood pH regulation, acidosis and alkalosis, Insulin & steroid hormones
	1½	½	1	Major pathways of glucose oxidation, blood glucose regulation, diabetes mellitus & glycogen storage disease
	1	½	½	Plasma lipoproteins, hyperlipidemia, lipoproteins, factors, fatty liver
	½	---	½	F.A. oxidation, ketosis, cholesterol metabolism, hypercholesterolemia and Atherosclerosis
	½	---	½	Heme metabolism Porphyrria and Jaundice, urea cycle, NPN compounds
	½	---	½	Sodium, potassium, vitamins & their deficiency manifestation
	½	---	½	DNA structure, replication, transcription, regulation of gene expression, DNA damage and repair.
	½	---	½	RNA structure and posttranscriptional modification
	½	---	½	Recombinant DNA technology, blotting techniques, cell cycle, apoptosis & tumor markers
	½	---	½	Protein synthesis: translation and posttranslational modifications
	½	---	½	Plasma enzymes, their diagnostic values, Liver & kidney function tests
	½	---	½	Urine and blood: normal and abnormal constituents & their clinical relevance.
100	7.5	1.5	6	Total

III-A) TOPICS:



- Regulation and abnormalities of blood pH.
- Carbohydrate metabolism: Glycolysis, hexose monophosphate pathway, uronic acid pathway, blood glucose, clinical implications of carbohydrate metabolism with special emphasis on diabetes mellitus, glucosuria and hypoglycemia.
- Lipid Metabolism: Fatty acids oxidation, lipoproteins and cholesterol metabolism, lipoproteins & pathological aspects of lipid metabolism: ketosis, fatty liver, hyperlipidemia and hypercholesterolemia.
- Protein metabolism: Biological value of proteins, nitrogen metabolism, fate of ammonia produced from deamination, urea cycle, non protein nitrogenous compounds and pathological aspects of protein metabolism: inborn errors of metabolism of individual amino acids.
- Basics of haem metabolism of, haemoglobinopathies, serum bilirubin, jaundice and porphyria.
- Basics of purines & pyrimidines metabolism with special emphasis on hypouricemia and gout.
- Hormones: mechanisms of action of hormones, insulin, steroid, thyroid and parathyroid hormones.
- Enzymes: mechanism of action, factors affecting their actions, with special emphasis on plasma enzymes and their clinical value.
- Vitamins classification and their deficiency manifestations.
- Mineral metabolism: Sodium & potassium and their deficiency manifestations.



- Nucleic Acids: structure, functions and protein biosynthesis, DNA structure, DNA replication, protein biosynthesis, DNA damage & repair.
- Structure and functions of RNAs, transcription and post-transcriptional modification.
- Recombinant DNA Technology: PCR, restriction endonucleases, cloning, formation of recombinant DNA, applications of recombinant DNA, Gene therapy.
- Cell cycle & apoptosis.
- Tumor markers.
- Liver & kidney function tests.
- Body fluids: Urine and blood: normal and abnormal constituents & their clinical relevance.

III-B) Tutorials:

- Acidosis & alkalosis
- Diabetes Mellitus.
- Hyperlipidemia & fatty liver.

III-C) **PRACTICAL CLASSES:** not applicable

4- **Teaching and learning methods:**

METHODS USED:

- Lectures
- Tutorials.

TEACHING PLAN:



Lectures: One lecture /week, one hour each, for 6 weeks, from 12:00 am to 1:00pm according to the current time table in the biochemistry department halls.

Tutorials: Half an hour/week, for 3 weeks, from 1:00 pm to 1:30pm according to the current time table in the biochemistry department halls.

Practical classes: not applicable

Time plan:

Total hours	Teaching hours	Time schedule	Item
6	one hour each (12: 00 am to 1: 00 pm)	Once /week (for 6 week)	Lectures
1 1/2	1/2 hour each (1: 00 pm to 2: 00 pm,)	Once /week (for 3 weeks)	Tutorials
11			Total

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA: attendance percentage of > 75% must be fulfilled before the final exam.

5-B) Assessment TOOLS:

Purpose (ILOs)	Tool
To assess knowledge & intellectual skills.	Written examination
To assess knowledge, intellectual skills& general& transferable skills.	Oral examination



5-C) TIME SCHEDULE:

week	Exam
6 months after registration	1- Final exam

5-D) Weighting System:

1- FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

2- SUMMATIVE ASSESSMENT:

% of Total Marks	Marks allocated	Examination
50%	25	• Written exam:
50%	25	• Oral exam:
100%	50	Total

- The minimum passing grade is 25 marks (50% of the total marks), provided that at least 12.5 marks (50% of marks for written exam) are obtained in the written exam.

5-E) Examinations description:

Marks	Description	Examination
25	Written exam (1 1/2 hours) composed of short essay questions, multiple choice questions and case study report.	1- Written exam



25	one session of oral examination	5- Oral exam
50		Total

6- List of references:

- Main Books: Department book (available for students to purchase from different bookshops at the faculty).
- Essential books: Harper's Biochemistry by: Roberk K. Murray, Daryl K. Granner, Peter A. Mayes and Victor W. Rodwell.
- Recommended Books: Lippincott's illustrated Biochemistry.
- Periodical websites: www.clinchem.org

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls
- Small group classes
- Information technology / AV aids

Course Specification



Medical Parasitology for Diploma degree of Hepatology, Gastroenterology and infectious diseases.

**Programme on which the course is given:-
Diploma degree of Hepatology, Gastroenterology and infectious diseases.**

Major or Minor element of programmes: Subsidiary-

- Department offering the program

Hepatology, Gastroenterology and infectious diseases Department.

- Department offering the course:

Medical Parasitology Department.

- Level: First Part Diploma Degree

- Date of specification approval: 4 / 1 /2013

A- Basic Information

- Title: Medical Parasitology .

-Code:HEGAID602.

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 should be able 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.

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.

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 1/2 hours), 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

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
by Millard Langfeld(2010)Cause and Manner of Transmission
- 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

- **Course title** Diploma degree of HEGAID

- **Code:** (HEGAID603)

- **Academic Year (2013 – 2014)**

- **Department offering the course:** Human Pathology Department
- **Academic year of Diploma program:** diploma degree program (2013-2014)_.....
- **Major or minor elements of the program:**
- **Academic level:**
- **Date of specification approval:**
 - Department council no....., date 14/2/2013
 - Faculty council no, date 21/2/2013

A) Basic Information:

- **Allocated marks:** 300 marks
- **Course duration:** 24 weeks of teaching
- **Teaching hours:** 1 hours/week = 37.5 total teaching hours

B) Professional Information:

1- Overall Aim of the Course:



The overall goals of the course are

- 1.1. Good application of basic pathological knowledge essential for the practice of hepatobiliary medicine
- 1.2. providing basic and specialized services in relation with biopsy diagnosis in the practice of medicine and investigations.
- 1.3. Application of special knowledge & its integration with others that have relation with the special practice
- 1.4. Awareness of the running problems as early tumor detection and diagnosis of hepatobiliary system and related systems
- 1.5. Diagnosis of practical problems as cases study and clinical assessments
- 1.6. Having fundamental knowledge of medical disciplines related to their clinical applications & able to use different technological tools as computer in the field of hepatobiliary medicine
- 1.7. Having acquired competency to be teacher, trainer, researcher and leader in the field.
- 1.8. Diagnosis, problem solving and decision making skills necessary for proper evaluation and management.
- 1.9. development of recent tools & ways essential for medical practice.
- 1.10. Awareness of his role in the progress of society and govern the environment in the light of international & local changes.
- 1.11. honesty and respect the practical rules.
- 1.12. Lifelong learning competencies necessary for continuous professional development.

2- Intended Learning Outcomes (ILOs):

2.a. Knowledge and understanding:

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

- 2.1.1. describe the dissection of different biopsies of hepatobiliary system
- 2.1.2. list the laws in relation to the practical work, medical practice and be acquainted with related relevant amendments and also related judgments passed by constitutional courts .
- 2.1.3 Describe the clinical manifestations and differential diagnosis of common pathological cases.
- 2.1.4. Recognize the scientific basis and interpretation of various diagnostic modalities essential for hepatobiliary medicine
- 2.1.5. mention the principles that govern ethical decision making in clinical practice as well as the pathological aspect of medical malpractice.
- 2.1.6. discuss ethics of medical research.
- 2.1.7. list basic knowledge & theories needed to support literature retrieval and further research capabilities.
- 2.1.8. Recognize the importance of life-long self-learning required for continuous professional development.
- 2.1.9. discuss the scope and impact of human rights law on persons and groups.



2.b. Intellectual Skills:

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

- 2.2.1. Diagnose, solve problem and make decision skills necessary for proper evaluation and management.
- 2.2.2. Evaluate the risky problems that could be met during taking biopsies .
- 2.2.3. Combine the clinical and investigational database to be proficient in clinical problem solving.
- 2.2.4. Plan for performance development in his practice.
- 2.2.5. Select the most appropriate and cost effective diagnostic procedures for each problem..
- 2.2.7. Formulate of research hypothesis & questions.
- 2.2.8. Adopt the questioning approach to own work & that of others to solve clinical problems

2.c. Practical and Clinical Skills:

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

- 2.3.1. assess, diagnose and evaluate of cases and investigation.
- 2.3.2. interpret all important pathological aspects for early cancer detection and assessment.
- 2.3.3. Perform the gross examination and able to describe the findings of gastrointestinal system and related systems efficiently
- 2.3.4. Diagnose and manage different hepatobiliary cases
- 2.3.5. interpret reports like cancer assessment report, cytological report and immunohistochemical report.
- 2.3.6. Apply different technical skills in his special practice.

2.d. General and transferable Skills:

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

- 2.4.1. Work effectively as a member or a leader of an interdisciplinary team and
- 2.4.2. Able to put rules & regularities for evaluation of performance of others.
- 2.4.3. Establish life-long self-learning required for continuous professional development
- 2.4.4. Use the sources of biomedical information and communication technology to remain current with advances in knowledge and practice.
- 2.4.5. Do self criticism. .
- 2.4.6. Retrieve, manage, and manipulate information by all means, including electronic means.

3- Course contents:

Topic	Total	Lectures	Practical/ small	%
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General Pathology	12Hrs	2hrs	10 hrs	
Cell response to injury, Stem cells and repair, Tissue deposits	2-1/2	1/2	2	
Inflammation ,Granulomas ,Viral diseases	2-3/4	3/4	2	
Disturbance of growth Neoplasia, Developmental and genetic diseases	2-3/4	3/4	2	
Circulatory disturbances, Radiation Basic imunopathology	2-1/2	1/2	2	
Diagnostic methods in pathology	2-3/4	1/4	2	
Special Pathology	16hrs	5 -1/2h	20 hrs	
Diseases of the Cardiovascular system	1-1/2	1/2	1	
Diseases of the respiratory system	1-1/2	1/2	1	
Diseases of the urinary system :	1-1/2	1/2	1	
Diseases of the gastrointestinal tract	7	1-	6	
Diseases of the Liver , gall bladder, pancreas	10-1/2	1-1/2	9	
Diseases of the lymphatic system, spleen , blood	1-1/2	1/2	1	
Diseases of the endocrine	1-1/2	1/2	1	
Types of biopsies. Diagnostic methods	1/2	1/2	0	
Total	37-1/2hrs	7-1/2hr	30hs	

4- Teaching and learning methods:

METHODS USED:



- 4.1-General lectures & interactive learning.
- 4.2-Small group discussions and case studies
- 4.3-Practical sessions
 - a- Histopathology slide lab
 - b- Museum of pathology.

TEACHING PLAN:

*Lectures: Division of students into 1 groups
one /week, Time from 9 to 10.*

Tutorials:

Practical classes

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	<u>one</u> times/week; one hour each between 9 to 10		
Practical	<u> </u> hours / <u> </u> week		
Tutorial	<u> </u> hours / <u> </u> week		
Total			

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA: Faculty bylaws

5-B) Assessment Tools:

Tool	Purpose (ILOs)
Written examination	to assess knowledge, understanding & intellectual skills ...
Oral examination	to assess professional and practical skills
Practical examination	to assess knowledge understanding & attitudes



5-C) TIME SCHEDULE: Faculty bylaws

Exam	Week
1- First part:	
- written	24week
- oral	24week
- practical & clinical	24week
4- Assignments & other activities	

5-D) Weighting System:

Examination	Marks allocated	% of Total Marks
1- First part:		
a- Written	150	50%
b- Practical	75	25%
c- Oral	75	25%
4- Assignments & other		
Total		

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

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinations description:

Examination	Description
1- First part:	
a- Written	e.g. MCQs, shorts assay, long essay, case reports, problem solving
b- Practical	Slides 2hrs: histopath., cytology and immuno-stained slides with questions Gross 1 hour: gross samples for cutting & description. Autopsy 2 hours: Performing an autopsy & discussion with examiner to assess knowledge understanding & attitudes
c- Oral	
6- Assignments &	e.g. Assignments, projects, practical books etc



other activities	
Total	

6.1- Course notes

- 1- Departmental books of General and Special histopathology, available in secretary office.
- 2- Handouts updated, administered by staff members
- 3- Museum notebook.
- 4- CDs for histopathological slides and museum specimens are available at the department.

6.2- Essential books (text books)

- Rosai and Ackerman's Surgical Pathology Juan Rosai, Mosby 2004
- Sternberg's Diagnostic surgical Pathology 4th edition, Lippincott Williams and Wilkins
- Kumar V ,Abbas AK ,Fausto N:Robbins and Cotran Pathologic Basis of Disease ,7th ed.;2005, Elsevier Saunders. Available at faculty bookshops & main library.

6.3- Periodicals, Web sites, ... etc

<http://www.pathmax.com/> <http://www-medlib.med.utah.edu/WebPath/LABS/LABMENU.html#2>
<http://www.med.uiuc.edu/PathAtlasf/titlePage.html>
<http://www.medscape.com/pathologyhome>
[http://www.gw-hyperlink](http://www.gw-hyperlink.com/) <http://umc.edu/dept/path/2>
umc.edu/dept/path/2F

7- Facilities required for teaching and learning

1. Data show
2. Overhead projector
3. Museum specimens
4. Projector slides covering available slides in slide box
5. surgical specimens



Course Specifications

**Course title: PHYSIOLOGY FOR HEGAID
Diploma.....**

.....
Code: HEGAID 601

Academic Year (201 3– 2014)

- **Department offering the course: PHYSIOLOGY HEGAID
Diploma (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 with biochemistry .



- credit hours / week = 45hrs total teaching hours.

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.

– 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

2.6- approaching to the detailed knowledge of physiology in relation of **Anesthesia**.

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.

4– Teaching and learning methods:

4.1.methods used

4.1-1.General lectures



4,1.2.-seminares
4,1.3-confrences



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 essay.
	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

7- Facilities required for teaching and learning



1. Data show.
2. Overhead projector.
3. postgraduate laboratories with their equipments.

- **Program on which the course is given:** Master & Diploma Degree in Hepatology, Gastroenterology and Infectious diseases.
- **Major or minor element of the program:** Minor.
- **Department offering the program:** Hepatology, Gastroenterology and Infectious diseases department.
- **Department offering the course:** Community Medicine department.
- **Academic Year/Level:**First Part.



- **Date of specification approval:** department council No. 208, date 29-8-2010. Revised & approved By Prof.Dr. Mahmoud Fawzy El Gendy **1/6/2013** .
- **Course title:** Community Medicine
- **Code:** HEGAID 604
- **Credit hours:** 2.5 credit hours for one semester

1. Overall Aims of the Course:

- Identification the most important community health problems related to Gastroenterology, Hepatology and Infectious disease.
- Application all administrative components (plan, implement and evaluate) to solve these problems according to their priorities throughout effective programs and health services.
- Prepare the student to follow proper research methods, to use statistical tools and considering medical & research ethics in this field.

A- Knowledge and understanding:

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

- Identify the prevalent health problems in the community that related to Gastroenterology and Hepatology , using various epidemiological strategies.
- Discuss appropriate programs and health services needed for prevention and control of these health problems.



- Describe the characters of outbreak /epidemic for infectious diseases related to G.I.T and liver.
- know principles of research methods, explain its tools for scientifically research health problems in the area of gastroenterology and Hepatology.
- Understand principles of medical statistics to collect, organize, manage, analyze and interpret data.
- Define the priority in solving health problems throughout course of medical administration and disease management by optimal use of available resources.
- Describe appropriate health education methods and materials.
- Identify environmental health hazards related to water, food, food-handlers and wastes in the community.
- Describe the micro- & macro-nutrients needs, sources, deficiency and common nutritional disorders in Egyptian communities.

B-Intellectual skills:

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

- Apply appropriate programs and health services needed for prevention and control these health problems.
- Select and use appropriate health education methods and materials.
- Counsel effectively the health care environment.



- Investigate an outbreak /epidemic for infectious diseases related to G.I.T and liver.

C-Professional and practical skills:

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

- Rank the prevalent health problems in the community that related to gastroenterology and hepatology , according to their priorities.
- Plan and evaluate appropriate programs and health services needed for prevention and control these health problems.
- Formulates proper objectives for provided health services.
- Conduct epidemiological outbreak /epidemic investigation for infectious diseases related to G.I.T and liver.
- Trace a source of infection during outbreaks/epidemics.
- Plot and interpret epidemic curve.
- Formulate and test hypothesis.
- Collect, organize, present& illustrate, analyze and interpret data.
- Prepare conduct and end health education session.
- Work as a member /leader of a team (staff management)

D -General and transferable skills:

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

- Apply appropriate communication strategies for use with clients, the health care team, and the community.
- Acquire the proper ethics in medical and research areas.



- Acquire some of statistical and administrative skills.
- Acquire some of health education, communication and life skills.

ILOs	Practical/Tutorial	Hours of Lectures	Topics
A1,A2,A3,B 4 C1,C4,C5,C6	-	5	<ul style="list-style-type: none"> • General epidemiology: <ul style="list-style-type: none"> • Epidemiology (definition, scope and uses & application). • Infectious process (3 links). • Prevention and control of infectious diseases. • Pattern of spread of infectious diseases. • Out-break/epidemic investigation. • Surveillance (definition, cycle & types). • Epidemiology of communicable diseases: <ul style="list-style-type: none"> • Food borne infection (viral, bacterial and parasitic infection)
A1,A2,A3	-	5	<ul style="list-style-type: none"> • Food borne infection (viral, bacterial and parasitic infection)



			<ul style="list-style-type: none"> • Arthropod borne parasitic infection (malaria, filarial and leishmaniasis). • Contact parasitic infection (schistosomiasis).
A1, A2, A3	-	5	<ul style="list-style-type: none"> • Epidemiology of non-communicable diseases • Cancer (liver, stomach and colon). • Health education, communication and life skills
A7, B2, C9, D1, D2, D4	-	3	<ul style="list-style-type: none"> • Definition and methods • Audio-visual aids • Planning for health educational program
A4, A5, C7, C8, D3	4	8	<ul style="list-style-type: none"> • Medical statistic • Research methodology. • Biostatistics
A8, B3	-	5	<ul style="list-style-type: none"> • Environmental Health: <ul style="list-style-type: none"> • Water sanitation and standard of potable water & investigation of water pollution.



			<ul style="list-style-type: none">• Food sanitation & food-handlers regulation and management.• Character of water, milk, meat, fish and egg borne outbreak.• Waste health hazards and disposal.• Insect & rodent control.
A9	-	3	<ul style="list-style-type: none">• Nutrition:<ul style="list-style-type: none">• Macro- and micro-nutrients & fibers (sources and roles in physiological body function).• Nutritional disorders & food additives. .• Antioxidants and free radicals.• Therapeutics nutrition.
A6,C2,C3,C1 0	-	2	<ul style="list-style-type: none">• Medical administration<ul style="list-style-type: none">• Health services administration



			and programming.
			<ul style="list-style-type: none"> The research team management.
A6,B2,C2,C3	-	5	<ul style="list-style-type: none"> Primary health care & health service <ul style="list-style-type: none"> Conception, components and elements of primary health care. School health services. Rural health services.
	4	41	Total

- Lectures.
- Practical classes
- Small group discussion with case study and problem solving.

- Assessment tools**

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

- Assessment schedule**

Time	Exam
After 6 months of registration of the degree.	Written exam
After the written exam.	Oral exam

- Weighting System**



% of Total Marks	Marks allocated	Examination
50%	100	Written
50%	100	Oral
100%	200	Total

- **Examination description**

Description	Examination
<ul style="list-style-type: none">• Written paper composed of short essay-type questions.• One oral examination station with 2 staff members (10-15 minutes: 4-5 questions).	<ul style="list-style-type: none">• Written• Oral

6.1- Basic materials like Department notebook: *Handouts* of the staff member in the department

6.2- Essential books (text books) like *Khalil IF, 1999*: Biostatistics, Cairo University

6.3- Recommended books like *Maxcy RL, 2008*: Public health and preventive medicine.

6.4- Periodicals, Web sites, etc:

- WHO.int.com
- Pub. Med
- Google

7.1 Adequate infrastructure: including teaching places (teaching class & teaching hall) provided with comfortable desks, fans, air condition, adequate sources of lighting both natural and artificial and security tools.

7.2 Teaching tools: including screens, black board, white board, data show, computers, laser printer, scanner & copier.

7.3 Computer program: for statistical analysis of data.