

Course specification of Applied Bacteriology for
Hepatology medicine
Master

C- Administrative Information

Course Title: Applied Bacteriology

Code: HEPT713

Department giving the course: Medical Microbiology and Immunology

Program on which the course is given: Master Hepatology
Medicine

Department offering the Program: Hepatology Medicine

Academic level: 1st part

Date of specification: 2011

Date of approval by department and Institute council:2011

D- Professional Information

1 – Overall aims of course:

- To enable the candidate to cope with the international standards of Medical Microbiology & Immunology.
- To know Infection control procedures
- To have knowledge of the modern established technologies of diagnostic techniques in hepatology field.
- To understand laboratory management including effective sterilization .

2 – Intended learning outcomes of course (ILOs)

A -Knowledge and Understanding:

a1-Describe the nature of viruses, bacteria, parasites and fungi

a2-Explain modes of transmission and the mechanisms of microbial pathogenesis and the outcomes of infection, including chronic microbial infections that affect the liver.

a3-Discuss the laboratory diagnosis of microbial diseases affecting the liver.

b- Intellectual Skills

b1 - Analyze, present, interpret and critically evaluate biomedical data

b2- Assess health risk factors associated with working in a research diagnostic laboratory

c- Professional and Practical Skills

c1- Select diagnostic laboratory tests to diagnose infectious diseases.

c2- Evaluate laboratory reports.

d- General and Transferable Skills

d1- Demonstrate competence and problem solving techniques

3- Course contents Detailed topics of course

I- General Bacteriology:

- Bacterial morphology and ultra structure
- Bacterial physiology
- Microbial genetics
- Advanced molecular techniques and its application in diagnostic microbiology
- Sterilization
- Antimicrobial agents and chemotherapy

II- Systematic Bacteriology

- Staphylococci
- Streptococci including Streptococcus pneumoniae
- Neisseria
- Spore forming organisms
- Corynebacteria
- Spore forming organisms
- Mycobacteria
- Enterobacteriaceae
- Vibrios, Campylobacter and Helicobacter
- Brucella, Haemophilus, Bordetella, Yersinia Mycoplasma and Legionella
- Spirochaetes-Bacteroids, Actinomyces, Nocardia
- Anaerobic bacteria
- General Virology
- Systematic Virology DNA Viruses RNA Viruses

III-Applied Microbiology (Hospital acquired infections)

Topic	Theoretical hours	Laboratory/ Practical	Total
General			

Bacteriology	4	3	7
Systematic Bacteriology	4	3	7
Applied Microbiology	3	3	6
Total hours	11	9	20

4- Teaching and learning methods

4.1- Lectures

4.2- practical rounds.

5- Student assessment methods

5.1- Written Examination for assessment of knowledge and understanding and intellectual skills

5.2- Oral Examination for assessment of knowledge and understanding outcomes, intellectual skills, and general skills

Assessment schedule

One written exam 3 hour in Applied Bacteriology(150 mark) + oral (50 marks),.

Assessment weighing:

Final written exam: 75%

Oral exam: 25%

Total: 100%

6- List of references

6.3- Recommended books: Jawetz, Melnick and Adelberg's

6.4- periodicals and web sites of Microbiology and Immunology

http://www.microbe.org/microbes/virus_or_bacterium.asp

<http://www.bact.wisc.edu/Bact330/330Lecturetopics>

7- Facilities required for teaching and learning

7.1- Overhead projectors

7.2- Computers

7.3- Microscope slides

7.4- Laboratories instruments

7.5- Internet club

We certify that all of the information required to deliver this course is contained in the above specification and will be implemented

Course coordinator:

Name: **prof.Dr.Enas khoneem**

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