COURSE SPECIFICATION

(Laboratory Safety Quality Assurance)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of hospital infection control
(2) Department offering the programme:	Medical Microbiology and Immunology
(3) Department responsible for teaching the course:	Medical Microbiology and Immunology dep.
(4) Part of the programme:	Third and fourth part
(5) Date of approval by the Department`s council	2-12-2014
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title:	Laboratory Safety Quality Assurance in infection control
(8) Course code:	ICMIC507LS
(9) Credit hours	1 hour lectures, 2 hours practical
(10) Total teaching hours:	15 h lectures, 60 h practical.

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows: (either to be written in items or as a paragraph)

1- To give the candidate basic knowledge of the types of laboratory.
2- To educate the candidate about biological risk in the microbiological lab.
3- To improve the candidate's knowledge how to protect themselves from exposure to biological risk .
4- To develop the candidate's knowledge of safety level of microbiology labs.

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A 1 Outline the types of laboratory.
A2 Describe the structural components of lab.
A3 List safety levels of lab.
A4 Recognize some method of handling and transport of specimens.
A5 Recognize some method of disinfection and sterilization of microbiological media laboratory environment..
A6 Recognize microbiological laboratory waste disposal method.
A7 Recognize the hazards of dealing with biological materials
A8 List important points in lab design.

B- Intellectual skills

B1 Develop, under supervision, core reporting skills
B2 Explain mode of injuries inside the lab.
B3 Plan the laboratory uses of the lab parts
B4 Interpret the protection steps.
B5 Interpret the results of application of safety measures.
B6 Advice for further methods for safety in the lab.
B7 Achieve a low or high safety level.

C- Professional/practical skills

C 1 Collect specimens safely for organisms diagnosis
C 2 Directly examine specimens by Gram stains by safety methods.
C 3 Examine histopathology slides for some infections.
C4 Culture and identify pathogenic and common laboratory contaminants
C5 Perform special techniques in critical situations.
C6 Maintain safe hood cultures.
C7 Perform disinfection for lab.
C8 Perform disinfection for cultures.

D- Communication & Transferable skills

D 1 Effectively utilize the library to access and search for information.
D 2 Develop effective teaching skills by teaching junior colleagues and students as well as through conference and seminar presentations.
D 3 Utilize problem solving skills in practical situations.
D 4 Work in a team in the laboratory
D 5 Report the facts using printable sheets in the field of Microbiology
D6 Search midline data base for further fungal diagnostic approaches D ٨ Supervise collection, safe handling and processing of all routine specimens received in the laboratory
D 7 Supervise collection, safe handling and processing of all routine specimens received in the laboratory
D8 Develop a sense of the continuity of identification of specimens from collection, through culture and further testing to the issuing of a final report

(3) Course content:

Subjects	Lectures
Biosafety cabinet	2 hours
Biosafety level	2 hours
Blood borne pathogens	2 hours
Sharps handling and disposal	2 hours
Disinfection and sterilization	2 hours
Waste disposal	2 hours
Handling and transport of specimens	1 hour
Spill cleanup procedures	1 hour
Design issues for the laboratory facility	1hour
Total	15 hours

Practical

Skills	Laboratory
Collection of specimens	7 hours
Gram stains	7 hours
histopathology slides	7 hours
Culture	7 hours
special techniques in critical situations (direct antigen detection)	8 hours
safe hood cultures.	8 hours
disinfection for lab.	8 hours
disinfection for cultures.	8 hours
Total	60 hours

(4) Teaching methods:

4.1: Lectures

4.2: Seminars

4.3: Laboratory classes.

4.4: Attending workshops and conferences

4.5 Observation of, assisting and discussion with senior medical staff

(5) Assessment methods:

5.1:Written exam for assessment of ILOs number; A 1-7, B 1-7

5.2 continuous assessment MCQ exam for assessment of ILOs number; A 1-7, B 1-7

5.3: structured Oral exam for assessment of ILOs number; A 1-7, B 1-7,

5.4: OSPE Practical exam for assessment of ILOs number; C1-8 and D 1-8

Assessment schedule:

Assessment 1: Final Msc exam : 36 months from the date of job admission or 30 months from the date of registration to the degree

Percentage of each Assessment to the total mark: (assessment of the total microbiology course)

Written exam:…48 marks that's is 48% of the total marks.

continuous assessment MCQ exam: 12 marks that's is 12% of the total marks

OSPE exam:…20 marks ,that's is 20% of the total marks

Structured oral exam 20 marks , that's is 20% of the total marks

Other types of assessment:……None……. .%:……

Other assessment without marks:

1-Candidate Logbook which should be fulfilled and signed by Head of the department.

1- Attendance Criteria: Minimum acceptance attendance is 75%

(6) References of the course:

6.1: Hand books: Department theoretical books

6.2: Text books:…

1. Topley and Wilson's Microbiology and Microbial infections. 8 volume,2005,10th edition

2. Color Atlas and Textbook of Diagnostic Microbiology: Elmer W Koneman 2009,9th edition

3- Jawetz, Melnick and Adelbergs Medical Microbiology, 2010, 29 edition.

6.3: Journals:

1. Clinical Microbiology Reviews
2.Journal of Clinical Microbiology
3. Journal of Medical Microbiology
4. Journal of Microbiological Methods
5. Indian Journal of Medical Research.

6.1: Websites:

Center for Disease Control -www.cdc.gov
World Health Organization- www.who.int
National Library of medicine- www.pubmed.com
MD Consult- www.mdconsult.com

1. **Facilities and resources mandatory for course completion:**
    1. Lecture halls.
    2. Data shows and computer assistance.
    3. Microbiology laboratories.
    4. Reagents for diagnosis

Course coordinator: **Dr. Ennas Hammad**

Head of the department: **Prof. Dr. Mohammad Abuoelala**

Date:

P.S. This specification must be done for each course.