



## COURSE SPECIFICATION

### (Basic principles & Implementation of Hospital Infection Control)

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 department
(3) Department responsible for teaching the course.	Medical Microbiology and Immunology department.
(4) Part of the programme.	Second part
(5) Date of approval by the Department`s council	2/12/2014
(6) Date of last approval of programme specification by Faculty council	<b>9-8-2016</b>
(7) Course title.	Basic principles & Implementation of Hospital Infection Control
(8) Course code.	ICMIC507 HIC
(9) Credit hours	14 hours lectures 1 hour practical 2 hours field study
(10) Total teaching hours.	210 hours lectures 30 hours Practical 120 hours field study

## **(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 ensure that candidates are fully prepared to lead infection prevention and control services program in different healthcare facilities and are capable of identifying and tracing the source of nosocomial infection.
- 2- To provide the candidate with knowledge about standard infection control guidelines and measures.
- 3- To provide the candidate with knowledge about standard infection control policies and measures in hospitals.
- 4- To teach the candidate the basics of infection control in microbiology laboratory.
- 5- To teach the candidate the basics of design, collection, compiling and interpretation of surveillance systems

### **(2) Intended Learning Outcomes (ILOs):**

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

#### **A- Knowledge and Understanding**

- A 1 Recognize hand hygiene and its importance in prevention of infection transmission.
- A 2 Recognize personal protective equipments as gowns, masks, aprons, eye shield....etc
- A 3 Discuss cleaning, sterilization and disinfection methods in different occasions in hospitals.
- A 4 Explain Aseptic techniques in ORs, wards, surgical departments....etc
- A 5 Recognize waste management.
- A6 Discuss patient placement and transportation.
- A7 Describe the isolation policies and procedures.
- A8 Identify How to deal with sharps
- A9 Explain immunization program required for health care personnel
- A10 Recognize factors increase antibiotic resistance in hospital
- A11 Recognize methods of care of devices
- A 12 Explain antibiotics uses in prophylaxis
- A13 Describe infection control strategies in different health care settings

## **B- Intellectual skills**

- B1 Assess common and rare infections and develop infection prevention and control strategies
- B2 Design teaching course to ensure excellence in implementation of HCW in prevention and control of nosocomial infection
- B3 Assess pre and post-employment management.
- B4 Evaluate control measures for infection in microbiology laboratory.
- B5 Perform screening for health care personnel

## **C- Professional/practical skills**

- C1 Investigate and follow-up communicable diseases : take the proper samples, perform diagnostic tests and take follow up samples
- C2 Formulate management plan for prevention and management of sharp injuries.
- C3 Manage blood and body fluid spills.
- C4 Formulate Antibiotic policy.
- C5 Participate in antimicrobial monitoring and evaluation.
- C6 implement infection control measures in microbiology laboratory and perform quality control measures.
- C7 Apply different care bundles for device related infection
- C8 Design of different isolation rooms

## 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 presentations

D3 Recommend level of work restriction for health care workers with communicable diseases

D4 Audit the infection control practice in hospitals through evaluating the structure, processes and outcomes against the standards according to evidence based IC guide-lines.

D5 Follow the ethical regulations of sample collection and delivery of results, showing respect to the patient's privacy.

D 6 Utilize problem solving skills in practical situations

D 7 Collaborate with appropriate persons to establish the existence of an outbreak.

D 8 Use different media for teaching that are appropriate to the teaching setting

D9 Communicate with other members of the multidisciplinary team

### (3) Course content.

#### Module 1

Subjects	Lectures
Standard infection control guidelines and measures	21 hours
Prevention and management of sharp injuries.	21 hours
Management of blood and body fluid spills	21 hours
Infection control measures for communicable diseases	21 hours
Health (infectious diseases) regulations	21 hours
Total	105 hours

### Practical

<b>Skills</b>	<b>Laboratory</b>	<b>Field</b>
Investigate and follow-up communicable disease	5 hours	10 hours
prevention and management of sharp injuries	5 hours	10 hours
blood and body fluid spills.		10 hours
Antibiotic policy.	5 hours	10 hours
work restriction for health care workers with communicable diseases (influenza, measles, chicken pox...etc)		10 hours
Auditing the infection control practices (hand hygiene, PPE, waste disposal...etc) in hospitals		10 hours
<b>Total</b>	<b>15 hours</b>	<b>60 hours</b>

## Module 2

Subjects	Lectures
Antibiotic stewardship	21 hours
Infection control strategies for antibiotic resistant organisms	21 hours
Infection control in specific patient care settings.	21 hours
Infection control in out-patient healthcare settings.	21 hours
Infection control for diagnostic and therapeutic devices.	21 hours
Total	105 hours

### Practical

Skills	Laboratory	Field
monitoring and evaluation of antimicrobial use.		10 hours
infection control measures in microbiology laboratory and perform quality control measures.	10 hours	10 hours
care bundles for central lines, urinary catheters and ventilators.		10 hours
airborne, contact and droplet isolation rooms		10 hours
ethical regulations of sample collection and delivery of results		10 hours
Investigations of outbreak.	5 hours	10 hours
Total	15 hours	60 hours

**(4) Teaching methods:**

**4.1. Lectures**

**4.2. Seminars**

**4.3. hospital tours and rounds.**

**4.4. Attending workshops and conferences**

**4.5 Observation of, assisting and discussion with senior medical staff**

**(5) Assessment methods:**

**5.1: Written exam A1-12, B 1-5**

**5.2: Structured Oral exam A1-12, B 1-5**

**5.3: OSPE Practical exam C1-8, D1-9**

**5.4: MCQ exam A1-12, B 1-5**

**Assessment schedule:**

**Assessment 1: Final Msc exam week/month. 4 semesters from admission to the degree**

**Assessment 2: written and MCQ exams: at the end of each semester**

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

**Written exam.... 240 marks (2 papers each 120 marks) that's is 48% of the total marks**

**MCQ exam ... 60 marks that's is 12% of the total marks**

**OSPE exam... 100 marks that's is 20% of the total marks**

**Structured oral exam 100 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.**

**2- 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- Control of Hospital Infection- A practical handbook (most recent edition)-2000, 4th edition
- 3-Microbiology and Clinical Practice: Shanson-1999, 3rd edition

**6.3. Journals:**

1. Infection Control and Hospital Epidemiology
2. Journal of Hospital Infection
- 3 American journal of Epidemiology

**6.1. Websites:**

1. Center for Disease Control -[www.cdc.gov](http://www.cdc.gov)
2. World Health Organization- [www.who.int](http://www.who.int)
3. Infectious Disease Society of America- [www.idsociety.org](http://www.idsociety.org)
4. National Library of medicine- [www.pubmed.com](http://www.pubmed.com)
5. MD Consult- [www.mdconsult.com](http://www.mdconsult.com)
6. Global Infectious Disease epidemiology network [www.gideononline.com](http://www.gideononline.com)

**6.1. Others:**

**(7) Facilities and resources mandatory for course completion.**

1. Lecture halls.
2. Data shows and computer assistance.
3. Microbiology laboratory.

**Course coordinator:** Dr. Hany Lotfy

**Head of the department:** Prof. Dr. Mohamed Abou el-ela

**Date:**

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