COURSE SPECIFICATION

(Basics of Radiotherapy in Oncology)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Medical Oncology
(2) Department offering the programme:	Internal Medicine Department
(3) Department responsible for teaching the course:	Radiotherapy and Nuclear medicine department
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	2/08/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	(Basics of Radiotherapy in Oncology)
(8) Course code:	MONC 517
(9) Total teaching hours:	15 hours/15 weeks

(B) Professional information

(1) Course Aims:

To give the graduate the ability to treat cancer patients based on the data obtained during the course and to have the ability to self-update his medical knowledge in the field of radiotherapy.

(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:

A1. Identify types of radiation and effect of each type on human body; understand how radiation interact with human tissues.

A2. List all the effects and possible side effects of radiotherapy on human being and list them according to each site. Define each tolerated dose of radiotherapy for each human system. Relate each side effect either acute or late to symptoms and signs.

A3. Define other radiotherapy treatment Related Issues; including oncological emergencies, paraneoplastic syndromes, local therapy of metastatic cancers, and management of malignant effusions, manage Supportive Care; including pain management, hematopoietic growth factors, transfusion therapy, nutritional support, and unproven methods of treatment.

A4. Describe techniques of radiotherapy and isotopes applications in the field of oncology.

B-Intellectual skills:

B1. Illustrate the mechanism by which radiation interact with human cells, employ the knowledge into choosing the proper dose of radiotherapy for each tumor, relate basics of physics with the planning techniques.

B2. Relate emergency symptoms of disease and order proper investigations.

B3. Evaluate patient's response to treatment and judge it against possible side effects.

B4. Criticize a certain diagnosis or treatment plan for oncological emergency based on evidence based data.

(3) Course content:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching Hours
(1) Biological aspects of Radiation Oncology • Radiation deposits energy in tissues and produces ionization events • Molecular responses to radiation induced cell injury • Specific pathways for the repair of double-strand DNA breaks	1h 1h 1h				3h
(2) Modulators of Radiation.	2h				2h
(3) Physical aspects of Radiation Oncology	2h				2h
(4) Radiation and Treatment planning	3h				3h
(5) Clinical aspects of Radiation Oncology • Tissue effects from radiation • Principles underlying fractionation	1h 1h				2h
(6) Clinical aspects of Brachytherapy and other radiation modalities	3h				3h

(3) Teaching methods:

4.1: Power Point presentation.

4.2: Case discussion.

(4) Assessment methods:

5.1: Written exam for assessment of A1-4, B1-4,

5.2: MCQ exam for assessment of A1-4, B1-4,

Assessment schedule:

Final exam week/month: 24th week.

Percentage of each Assessment to the total mark:

Written exam: 80 marks:

MCQ exam 20 marks

20% of total marks of the first part.

(5) References of the course:

Text books:- Hollan-Frei Cancer Medicine,

- DeVita Cancer Principles and Practice of Oncology

(6) Facilities and resources mandatory for course completion:

-Lectures Halls.

-Data show.

Course coordinator:

Prof. Sameh Shamaa

Prof. Tawfik Elkhodary

Dr. Ziad Emarah

Head of the department:

Prof. Salah El-Gamal

Date of First Approval: 22/12/2010

Date of Last Approval: 23/08/2016