



## **COURSE SPECIFICATION**

## (Radiotherapy)

# Faculty of Medicine-Mansoura University

# (A) Administrative information

| (1) Programme offering the course.                                      | Postgraduate Doctorate degree of Medical Oncology  Internal Medicine Department |  |  |
|---|---|--|--|
| (2) Department offering the programme.                                  |   |  |  |
| (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 | 9/8/2017  |  |  |
| (7) Course title:   | Radiotherapy  |  |  |
| (8) Course code:  | MONC 617  |  |  |
| (9) Total teaching hours.   | 7.5 hours/15 weeks  |  |  |

## (B) Professional information

#### (1) Course Aims.

- 1. Provide the Medical Oncology postgraduate students with the advanced medical knowledge essential for the practice of specialty and necessary to provide further training and practice in the field of Radiotherapy according to the international standards.
- 2. Provide Ethical principles related to the practice in this highly sensitive specialty.

### (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.

By the end of the study of doctoral program in Medical Oncology, the Graduate should be able to:

- A1. Define the recent advances in radiotherapy, brachytherapy and cancer treatment by radioactive nuclides.
- A2. Explain the recent advances in radiobiology.
- A3. Explain the recent advances in chemotherapy and biotherapy combinations with radiotherapy.
- A4. Identify the advanced studies and recent technologies in radiotherapy.

#### B-Intellectual skills.

- B1. Assemble data through history taking to reach a provisional diagnosis for oncological problems.
- B2. Determine different diagnostic alternatives the ones that help reaching a final diagnosis for oncological problems.
- B3. Assess risk in professional practices of radiotherapy.
- B4. Plan to improve performance in the field of radiotherapy.

## (3) Course content.

| Subjects                   | Lectures | Clinical | Laboratory | Field | Total Teaching Hours |
|----------------------------|----------|----------|------------|-------|----------------------|
|                            |          |          |            |       |                      |
| 1) The Disciplines of      | 0.5h     |          |            |       | 0.5h                 |
| Radiation Oncology         |          |          |            |       |                      |
| 2) Biological and          | 1h       |          |            |       | 1h                   |
| Physical Basis of          |          |          |            |       |                      |
| Radiation Oncology         |          |          |            |       |                      |
| 3) Modulators of           |          |          |            |       |                      |
| Radiation.                 | 0.5h     |          |            |       | 0.5h                 |
| 4) Radiation and           | 1h       |          |            |       | 1h                   |
| Treatment planning         |          |          |            |       |                      |
| 5) Photon external-Beam    | 1h       |          |            |       | 1h                   |
| Therapy: Dosimetry         |          |          |            |       |                      |
| and Treatment              |          |          |            |       |                      |
| planning                   |          |          |            |       |                      |
| 6) Electron-Beam           | 0.5h     |          |            |       | 0.5h                 |
| Therapy: Dosimetry         |          |          |            |       |                      |
| and Treatment              |          |          |            |       |                      |
| planning                   |          |          |            |       |                      |
| 7) Tree-Disentail          | 1h       |          |            |       | 1h                   |
| Conformal Radiation        |          |          |            |       |                      |
| Therapy                    |          |          |            |       |                      |
| 8) Intensity-Modulated     | 0.5h     |          |            |       | 0.5h                 |
| Radiation Treatment        |          |          |            |       |                      |
| 9) Altered Fractionation   | 0.5h     |          |            |       | 0.5h                 |
| Schedules                  |          |          |            |       |                      |
| 10) Basics of Nuclear      | 0.5h     |          |            |       | 0.5h                 |
| Medicine                   |          |          | _          |       |                      |
| 11) Late Effects of Cancer | 0.5h     |          |            |       | 0.5h                 |
| Treatment                  |          |          |            |       |                      |

- (4) Teaching methods.
  - 4.1. Power Point presentation.
  - 4.2. Case discussion.

#### (5) Assessment methods.

5.1. Written exam for assessment of A1-4, B1-5,

Assessment schedule.

Final exam week/month: 15<sup>th</sup> week.

Percentage of each Assessment to the total mark.

Written exam. 80 marks 80% of total course exam. MCQ exam 20 marks 20% of total course exam.

### (6) References of the course.

Text books:- Hollan-Frei Cancer Medicine.

- DeVita Cancer Principles and Practice of Oncology

- (7) 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