COURSE SPECIFICATION

Radiological Physics (Advanced course)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	MD degree of Radiology program
(2) Department offering the programme:	Radiology Dpt.
(3) Department responsible for teaching the course:	Radiology Dpt.
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	28/6/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Radiological Physics (Advanced course)
(8) Course code:	RAD 629 ARP
(9) Total teaching hours:	37.5

(B) Professional information

(1) Course Aims:

The broad aim of the course is to provide the students with the basic physical principles of different radiologic modalities and radiation safety & protection.

(2) Intended Learning Outcomes (ILOs):

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

A) Knowledge and Understanding

A1. Describe the physics and technical principles of the different imaging modalities.
A2. Identify the recent technical innovations in different imaging modalities and explain how to apply them to reach a final diagnosis.
A.3. Explain the value of enhancing patient safety & standardization of CT contrast media practice.

B- Intellectual skills

B1. Assemble available human and equipment resources in the field of study to achieve the search goals in a given time scale.

3) Course content:

Subjects	Lectures	Clinical	Total Teaching Hours
1. MR perfusion	3.75	-----	
2. MRI (basics)	3.75		
3. MRA	3.75		
4. DWI	3.75		
5. MRS	3.75		

6. Artifacts	3.75		
7. BOLD	3.75		
8. Multi-slice CT	3.75		
9. CTA	3.75		
10. Doppler	3.75		
			37.5 Hrs

4) Teaching methods:

4.1. Lectures

4.2: Meetings

4.3: Case presentations

4.4. Video demonstrations

5) Assessment methods:

5.1: Written examination for assessment of knowledge and intellectual skills.

5.2: MCQ examination for assessment of knowledge and intellectual skills.

5.3: Log book for activities for assessment of: mainly for assessment of practical & transferable skills which are accepted through attending different conferences, thesis discussions, seminars, workshops, attending scientific lectures as well as self learning.

5.4: The supervisor requires certain assignments: meetings and case presentations that are evaluated and signed by the supervisors in the log book (without marks).

5.5: Meetings: the candidate should prepare and present at least one seminar in a topic related to the course and determined by the supervisors in front of the department staff (without marks).

Assessment schedule:

Assessment 1: written exam. week/month: 11/42

Percentage of each Assessment to the total mark:

Written exam: 100 %:

MCQ: ----

Other types of assessment: ----

Other assessment without marks: log book

6) References of the course:

6.1: Hand books:

6.2: Text books: - Textbook of Radiology and Imaging, David Sutton.

6.3: Journals:

6.4: Websites: www.radiologyinfo.org

6.5: Others:

7) Facilities and resources mandatory for course completion:

- Lecture rooms: available in the department
- Facilities for image analysis
- Computers for data analysis
- Data show facilities
- Video demonstrators

Course coordinator:

D. Eman Abd El Salam

D. Nehal ElBatooty

Head of the department: Prof.Dr/ **Mahmoud Abd ElShaheed** **Date:**