COURSE SPECIFICATION

Nuclear Medicine (level 1)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Clinical Oncology and Nuclear Medicine/ CONM517
(2) Department offering the programme:	Clinical oncology and nuclear medicine department
(3) Department responsible for teaching the course:	Clinical oncology and nuclear medicine department
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	**6/5/2020**
(6) Date of last approval of programme specification by Faculty council	**20/9/2020**
(7) Course title:	**Nuclear Medicine(level 1)**
(8) Course code:	CONM517NM1
(9) Total teaching hours:	15 hours

(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- **Educate the terminology of nuclear medicine.**

2- **Prepare the candidate to be able to use isotopes, machines, hot lab.**

3- **Provid the candidate with the different pharmaceuticals, how to prepare, and complications.**

(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 the major basis of nuclear medicine.

A2: Define laboratory techniques used, dose preparation and complications.

A3: Describe health physics, waste disposal and decontamination.

A4:Explain concepts of quality control in nuclear medicine.
A5: Identify patient selection, and complication and how to manage.
A6:list radiopharmacology and radioimmunoassay.

B- Intellectual skills

B1: interprete preparation, indication, waste disposal of different pharmaceuticals.
B2: recognize patient selection, different instrumentation and precautions.
B3:demonsterate radionuclide production, use, and exposure to unsealed sources.
B4: illusterate quality control.

D- Communication &Transferable skills

D1: Trainees must be able to.
Explain the procedure of diagnosis and treatment details honestly in language appropriate to patients and their families.

D2: instruct the patients and family with the possible side effect and how to deal

(3) Course content:

Subjects	Lectures
***General basis of nuclear medicine.**	2
***Laboratory techniques used in nuclear medicine including preparation of standards.**	1
***Dose preparation and quality assurance of the dose calibrators.**	2
***Radiopharmacology.**	1
***Health physics-waste disposal and decontamination.**	2
*** Radioimmunoassay and radioimmunotherapy**	1
*** Concepts of quality control in nuclear medicine.**	1
*** Radiation exposure of unsealed sources.**	2
*** Instrumentation.**	
- **Patient selection and preparation**	1
- **Complications and precaution**	1
Radionuclides production and use	1

(4) Teaching Methods

4.1, lectures
4.2, scientific meetings
4.3, case presentation
4.4, panel discussion
4.5, interactive teaching

(5) Assessment methods:

5.1: written exam for assessment of knowledge , intellectual ILOs, and Professional/practical skills .

5.2: oral exam for assessment of knowledge , intellectual ILOs, and practical skills.

5.3 MCq continuous assessment for assessment of knowledge , intellectual ILOs

Assessment schedule:

Assessment 1: written exam held after 6 months of registration.

Assessment 2: oral exam held after 6 months of registration and structured oral exam.

Assessment 4: MCQ exam held at the end of first semester (15th week).

Percentage of each Assessment to the total mark:

Written exam: 144 marks,

MCQ. 36 marks.

Oral exam: 120 marks.

(6) References of the course:

6.1: Text books:

- Mettler, Fred A., and Milton J. Guiberteau. *Essentials of Nuclear Medicine and Molecular Imaging E-Book*. Elsevier Health Sciences, 2018.
- Eckelman, William C., Marie Boyd, and Robert J. Mairs. "Principles of molecular targeting for radionuclide therapy." *Nuclear oncology: From pathophysiology to clinical applications*. Springer International Publishing AG, 2017.

6.3: Journals:

seminars in nuclear medicine

6.1: Websites:

www.snm.com

(7) Facilities and resources mandatory for course completion:

Candidates and their learning are supported in a number of ways:

- □ Candidates logbook
- □ Programme Specification
- □ Extensive library and other learning resources
- □ Computer laboratories with a wide range of software
- □ Intranet with a wide range of learning support material
- □ MSc/MD Dissertation Supervisor

Programme Coordinator:
Prof Dr Somaya Eteba
Prof Dr: Rasha Abdellatif
Head of Department : Prof Dr Magda Allam

Date:
6/5/2020

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

We certify that all information required to deliver this programme is contained in the above specification and will be implemented. All course specification for this programme are in place.	
Programme coordinators: Prof Dr Somaya Eteba Prof Dr Rasha Abdellatif **Dean:** Prof Dr Nesreen Salah Omar	**Signature & date:** **Signature & date:**
Executive director of the quality assurance unit: Prof Dr Nesreen Shalaby	**Signature & date:**