



## COURSE SPECIFICATION

# (Non Invasive Cardiovascular Imaging)

# Faculty of Medicine- Mansoura University

# (A) Administrative information

(1) Programme offering the course.	Master degree of cardiovascular medicine	
(2) Department offering the programme.	Cardiovascular Medicine Department  Cardiovascular Medicine Department	
(3) Department responsible for teaching the course.		
(4) Part of the programme:	Second Part	
(5) Date of approval by the Department's council	24-5-2016	
(6) Date of last approval of programme specification by Faculty council	9-8-2016	
(7) Course title:	Non Invasive Cardiovascular Imaging	
(8) Course code:	CARD 514NC	
(9) Credit hours:	1 credit hours	
(10) Total teaching hours:	15 h	

## (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 produce graduate able to acquire the competence and experience to effectively interpret different non invasive cardiac imaging

## (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- Recognize indications and use of echocardiography
- A2-Recognize different types of MRI protocols for cardiac scanning
- A3-Recognize technique of 4D Echo and strain imaging
- A4-Identify indication, contraindications, advantages and disadvantages cardiac CT
- A5-Recognize indications and contraindications of different cardiac stress imaging

#### B- Intellectual skills

- **B1- Proper use of Echocardiography**
- B2- Choose the best diagnostic modality in different cardiovascular disorders.
- B3- Describe the best way to deal with complications from non invasive cardiac imaging
- **B4- Interpret Cardiac Ct and MRI**

## (3) Course content:

Subjects	Lectures	Total Teaching Hours
1- Basic Echocardiography  2- Advanced Echocardiography  • 4D ECHO  • TEE  • Strain Imaging  • TDI  • Contrast ECHO  • Stress ECHO  3- Cardiac CT  4- Cardiac MRI  5- Cardiac Perfusion Scanning	6 1 1 1 1 1 1 1	
Total teaching hours	15	15

## (4) Teaching methods.

- 4.1: lectures, seminars, workshops
- 4.2: clinical sessions and work experience
- 4.3: Problem solving, case studies
- 4.4: directed and self directed learning activities

#### (5) Assessment methods.

Assessment schedule:

Assessment 1: Written exam

Assessment 2. MCQ

Percentage of each Assessment.

MCQ 6 marks of the total marks
Written exam. 24 marks of the total marks

Total: 30

#### (6) References of the course.

- 6.1. Hand books: Oxford handbook of cardiovascular medicine
- 6.2. Text books
  - Feign Baum Echocardiography
  - Washington Manual for ECHO
  - Cardiac Imaging
- 6.3: Journals: Periodicals of American Journal of Cardiology Periodicals of European Heart Journal Periodicals of American Heart Journal
- 6.4: Websites: Update guidelines of Cardiac Imaging, echocardiography
  - www.ESC.com, www.ACC.com,

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

Teaching rooms: Patients wards, Echocardiography room, Cardiac CT and MRI in radiology department, myocardial perfusion in radiology department

#### Course coordinator.

Prof Dr Eman ElSafty, Professor of cardiovascular medicine

Dr. Moheb Magdy, Lecturer of cardiovascular medicine

Head of the department: Prof. AbdelRazek Maaty

Date: 8-6-2016