COURSE SPECIFICATION

Bioengineering in cardiothoracic surgery

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate MD degree of Cardiothoracic Surgery/CSUR 627
(2) Department offering the programme:	Cardiothoracic Surgery Dept.
(3) Department responsible for teaching the course:	Cardiothoracic Surgery Dept.
(4) Part of the programme:	Second Part
(5) Date of approval by the Department`s council	28/3 /2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Bioengineering in cardiothoracic surgery
(8) Course code:	CSUC 627 BCS
(9) Total teaching hours:	15 teaching hours

(B) Professional information

(1) Course Aims:

1- Demonstrate a rigorous approach to research.
2- Be an effective member in a teamwork.

The objective of this course is to construct a management plan for patients undergoing cardiac surgeries whether adult or pediatric cardiac surgery.

(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 Classify and describe the pathological disorders of the heart and thoracic structures with its surgical importance.
A2 Interpret symptomatology of cardiothoracic disorders to their anatomical and pathological principles
A3 List techniques and complications of cardiopulmonary bypass, myocardial protection and mechanical support.

(3) Course content:

Subjects	Lectures	practical	Laboratory	Field	Total Teaching Hours
Applying adult and embryonic cells to generate new tissues	4				4
Characterizing cardiac cells derived from embryonic cells	3				3
Applying tissue engineering to the study of the diseases	4				4

Developing new biosynthetic materials	4				4

(4) Teaching methods:

4.1 Lectures.

4.2: Seminars.

4.3: Grand round Discussion.

4.4: Journal clubs.

(5) Assessment methods:

5.1: Written exam and MCQ exam

Assessment schedule:

Assessment 1:Assessment of the log book every month

Assessment 2 : MCQ exam at the end of the 4th semister

Assessment 3:Final exam at 36th month of admission to MD degree.

Percentage of each Assessment to the total mark:

Written exam: 24 marks

MCQ 6 marks

(6) References of the course: Text books

- Cardiac surgery (Kirklin/Barratt-Boyes)
- Sabiston & Spencer – Surgery of the Chest

(7) Facilities and resources mandatory for course completion:

- Lecture halls
- Data show equipment

Course coordinator:

Dr. Rami Ahmed Sabri

Head of the department:

Prof. Nour Eldin Noaman Gwely

Date: / /