COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Program offering the course:	Biochemistry
(2) Department offering the program:	General surgery
(3) Department responsible for teaching the course:	Biochemistry
(4) Part of the program:	First Part Master degree General Surgery
(5) External evaluator(s)	Prof. Dr. Alaa khalil Zagazig Faculty of Medicine
(6) Date of approval by the Department`s council	27/5/2013
(7) Date of last approval of program specification by Faculty council	9/8/2016
(8) Course title:	Biochemistry
(9) Course code:	SUR **504**
(10) Total teaching (credit) hours:	15

(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 prepare the candidates to acquire the required knowledge, skills and clinical applications of biochemistry that are relevant to the general surgical practice.

2- To enable the candidate to integrate the data of biochemistry properly in the daily practice of Surgery and to incorporate the findings of various biochemical investigations properly for the optimal management for the surgical patient.

Within the overall aim, the objectives of the Program are as follows:

1. Teaching the basic medical science related to Clinical surgical practice with concern to the biochemical aspects of the surgical patient and its relation to the management.
2. Integrate different aspects of clinical biochemistry with other surgical factors that may play a role in many related diseases.
3. Training the candidates for proper methods of conducting and interpreting biochemical investigations properly.
4. Training the candidate how to search for the recent knowledge and how to apply this in his field.

(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. To recognize the molecular structure, functions and mechanism of action of various enzymes and hormones in the body and their relation with surgery.

A2. Discuss the essential types of tumor markers, their chemical structure and clinical utility in surgical practice.

A3. Explain the concepts of basic molecular biology and their clinical applications in surgical research.

A4. Recognize the basic aspects of water balance and acid-base balance and their implications in surgical practice.

A5. Describe the chemical structure, functions, and clinical utility of trace elements and vitamins.

A6- Explain he biochemical basis of cellular growth factors and their clinical relevance in the surgical field.

A7- Discuss biochemical basis of different laboratory tests concerning hormones, enzymes, and tumor markers.

2- Intellectual activities (I)

The Postgraduate Degree provides opportunities for candidates to achieve and demonstrate the following intellectual qualities:

B- Intellectual skills

B1. Determine the proper laboratory test according to its indications in surgical practice.
B2. Relate the examination findings, investigational results and history taking to reach proper diagnosis of a surgical patients.
B3. Differntiate cases of surgical patient bases on biochemical investigations.

(3) Course content:

Subjects	Lectures	Clinical	Laborator	Field	Total Teaching Hours
* Clinical enzymology * Mechanism of hormone action * Molecular biology - Basic molecular biology - Applications of molecular biology in research * Cell growth regulators * Indications & Contraindications of minerals & trace elements * Physiology & disorders of water & electrolytes & acid base balance * Tumor markers	15	None	None	None	15

(4) Teaching methods:

4.1: Lectures

(5) Assessment methods:

5.1: written exam for assessment of knowledge and intellectual activities.

5.2. M.C.Q exam for assessment of understanding and intellectual activities.

Assessment schedule:

Final exam at the end of the first semester.

MCQ exam at the end of the first semester.

Percentage of each assessment to the total mark:

Written exam: 48 marks

M.C.Q: 12 marks.

Oral exam: 40 marks.

Other assessment without marks: logbook

(6) References of the course:

6.1: **Hand books:** Departmental book

6.2: **Text books: Text Book of Biochemistry (Cameron AT)**

6.3: **Journals:**

6.1: **Websites:**

6.1: **Others**

(7) Facilities and resources mandatory for course completion:

Lecture halls

(8) Evaluation of Program's intended learning outcomes (ILOs):

Evaluator	Tools*	Signature
Internal evaluator (s) Prof.Dr. Mohamed Farid Prof.Dr.Mohamed Abdelwahab Prof.Dr. Moh. Diaa El-Zawahry	Focus group discussion Meetings	
External Evaluator (s) Prof.Dr. Alaa Khalil	Reviewing according to external evaluator checklist report.	
Senior student (s)	none	
Alumni	none	
Stakeholder (s)	none	
Others	none	

* TOOLS= QUESTIONNAIRE, INTERVIEW, WORKSHOP, COMMUNICATION, E_MAIL

We certify that all information required to deliver this program is contained in the above specification and will be implemented. All course specification for this program are in place.	
Program coordinator: **Dr. Sameh Hany Emile.** **Lecturer of General Surgery. Mansoura University**	Signature & date:
Head of the department: **Prof. Dr. Nazem Shams** **Professor of General and surgical oncology. Mansoura University**	Signature & date:
Dean: **Prof. Dr. El-Said Abdelhady**	Signature & date:
Executive director of the quality assurance unit: **Prof.Dr. Seham Gad El-Hak**	Signature & date: