



Quality Assurance Unit



**Tanta University
Faculty of Medicine**

Department of Medical Biochemistry

Course Specifications

Medical Biochemistry for Chest Master Degree

2021-2022

Medical Biochemistry for Chest Master Degree Course specifications

University: Tanta

Faculty: Medicine

Department: Medical Biochemistry

A- Administrative Information

1- Program title: Chest diploma and master degrees

2- Department offering the program: Chest Department.

3- Department responsible for the course: Medical Biochemistry Department.

4- Course code: CHEST 8002

5- Level: first part

6- No. of Credit / taught hours:

Lectures: 1 credits

Total: 15 taught hours

7- Authorization date of course specification: 21-8-2020

B_ professional information

1 – Overall program aims

To provide the candidate with professional knowledge, for analyzing routine diagnostic laboratory services in Medical and Clinical Biochemistry and perform medical research.

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:

By the end of the program the candidate will be able to understand:

1-The basic theories and principles of basic science that help him to understand cardiovascular diseases; regarding diagnosis, management and prevention.

b. Intellectual skills:

By the end of the program the candidate will be able to:

- Analyze, and evaluate medical information and relate it to medical problem solving in cardiology.
- Discuss Biochemical paper on evidence based manner

c. Professional and practical skills :

By the end of the program the candidate will be able to:

- Interpret biochemical investigations and understand the biochemical basis of diseases

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- Ask for the suitable laboratory diagnostic tests

d. General and transferable skills:

By the end of the program the candidate will be able to:

- 1- Perform continuous medical education

Academic standards adopted

Academic standards for postgraduates was considered according to the academic standards of Boston University, school of medicine

<http://www.bu.edu/academics/busm/>

and was in line with those approved by The Egyptian Authority for Quality Assurance and Accreditation for Education (NAQAAE)

3 – Curriculum structure and content:

Code	Credit hours (1)		No of credit points	Course	Prerequisites
	Lectures	Practical			
CHEST 7002 & CHEST 8002	1	-	3 points	Medical Biochemistry for Chest	-

Detailed contents of the course topics. (Syllabus contents):

Week	Topic
1	General properties of Enzymes Catalysis Coenzymes Enzymes Specify Enzymes Classification & Nomenclature Quantitative Measurement of Enzyme Activity Isolation of Enzymes
2	Intracellular Distribution of Enzymes Isoenzymes

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Week	Topic
	Enzymes in Clinical Diagnosis
3	Carbohydrate Metabolism: Intermediary Metabolism of Carbohydrate Glycolysis Oxidation of Pyruvate to Acetyl-CoA
4	Glycogen Formation & Degradation, Glycogenesis, Glycogenolysis The Hexose Monophosphate Shunt or Pentose Phosphate Pathway
5	Gluconeogenesis Metabolism of Hexoses, Metabolism of Fructose, Metabolism of Galactose Minor Pathways of Glucose Metabolism, The Uronic Acid Pathway
6	Lipid Metabolism: Oxidation of Fatty Acids biosynthesis of Saturated Fatty Acids
7	Metabolism of Unsaturated Fatty Acids Metabolism of Acyglycerols Phospholipids & Sphingolipids in Disease (Lipidoses)
8	Role of Tissues: Metabolism of the Plasma Lipoproteins, Role of the Liver in Lipid Metabolism. Cholesterol Metabolism.
9	Regulation of Carbohydrate & lipid Metabolism Regulation of Ketogenesis, Interconversion of Major Foodsuffs. Te Economics of Carbohydrate & Lipid Metabolism in the Whole Body Function of carbonic anhydrase
10	Hormones
11	Hormones
12	Mineral metabolism

Week	Topic
13	Vitamins (daily requirement and deficiency).
14	Free radicals and anti-oxidants
15	Food chemistry

4-Teaching and learning methods:hybride

Lectures, seminars, journal clubs, case presentation and assignments.

- Throughout the course the candidate achieves these objectives by the following activities.
- A- Online Lectures.a1,a2.a2.a4,a5
- B- Online Seminars:b1 ,d1,d2.c1,c1,c2
- The candidate is expected to attend and participate in meetings that update relevant recent topics in metabolism and metabolic disorder
- C- Attending Practical Courses d1,d1,d3.d4(face to face)

5-Student Assessment:may be electronic but inside the faculty

5.1 End semester written examination. The grades of each semester examination are recorded in transcript for each student and the grades should not be less than C or the student should repeat this course.

Final written exam to assess (a_{1,2},b₁, c_{1,2})

5.2 Oral exam to assess (b_{1,2}, c₂, d_{1,2})

5.3 Log book to assess (c₁ & d₁)

6- Assessment schedule

6.1. End Semester written Examination	At the end of semester (passing is prerequisite for final exam)
6.2. Final one written qualifying examination	At the end of the courses (60% of the total mark)
6.3. oral qualifying examination	After the written (40% of the total mark)

- Final written examination consists of one paper, 1 hour s in Medical Biochemistry.

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- Oral examination in Medical Biochemistry.

7- Weighing of assessments

Final written examination	30 degree 60%
Final oral examination	20 degree 40%
Periodical examinations	Formative only
Semester work	Through log book
Other types of assessment	Through log book
Total	50 degree 100%

Grade	%	Code	CGPA points
Excellent	95% or more	A	4.000
	90% to less than 95%	A-	3.666
Very Good	85% to less than 90%	B+	3.333
	80% to less than 85%	B	3.000
Good	75% to less than 80%	B-	2.666
	70% to less than 75%	C+	2.333
Satisfactory	65% to less than 70%	C	2.000
	60% to less than 65%	C-	1,666
Failed	55% to less than 60%	D+	1.333
	30% to less than 55%	D	1.000
	Less than 30%	F	0.000

8- List of references

Text books

- Harper's Illustrated Biochemistry 28 edition Lange. Mcgraw Hill Boston 2010
- Lippincott ' S Illustrated review of Biochemistry fourth edition 2008
- Lehninger' Principle of Biochemistry fifth edition edition 2010
- Thomas M. Devlin Textbook of Biochemistry with Clinical Correlations Publisher: ECFC580B2John Wiley and Sons Ltd Edition: 6th Revised edition 2008
- William J. Marshall : Clinical Chemistry: With Access 4th edition 2008

Web sites

- www.tanta.edu.eg/faculties/medicine/departments/Bioch
- www.nlm.ncbi.gov
- [www. Medical biochemistry l.org](http://www.Medicalbiochemistry.l.org)
- <http://www.textbooks.com/Catalog/PD8/> biochemistry

9- Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has different types of scientific activity includes

- weekly seminars to discuss new trend and techniques
- journal Club to discuss the new scientific paper in the field of Medical Biochemistry and Molecular Biology
- Free Internet access for international data bases is available for all students through the faculty postgraduate library
- The essential text books for this course are available either in department or faculty library

10- We certified that all of the information required to deliver this course is contained in the above specifications and will be implemented

- program external evaluator: Prof.Dr. Tarak Foaad
- Program Internal evaluator : Prof. Dr. Thanaa El Shiek
- Reports of external and internal evaluators
- Questionnaire to students
- Reports of faculty internal auditing system

Will be included in the annual program report , and action plan will be structured accordingly

-Appendix courses specifications

We verify that the above report and the analysis of students and external evaluator opinions are accurate.

Course coordinator and head of department
name.....signature.....Date.....

Head of quality assurance unit:
name.....signature.....Date.....