



Biochemistry & molecular Biology related to dermatology & andrology

COURSE SPECIFICATION

MD Dermatology, Andrology and STDs

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course:	MD Dermatology, Andrology and STDs
(2) Department offering the programme:	Dermatology, Andrology and STDs
(3) Department responsible for teaching the course:	Dermatology, Andrology and STDs
(4) Part of the programme:	first part
(5) Date of approval by the Department`s council	3/4/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Biochemistry & molecular Biology related to dermatology & andrology
(8) Course code:	DERM 615 BM
(9) Total teaching hours:	15
(10) Number of credit hours	1

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

- 1- Provides the student with detailed and advanced knowledge about
Biochemistry & molecular Biology related to dermatology & andrology.

(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:

A 1- Recognize the following:

- a) Porphyrin metabolism.
- b) Oxidative stress & antioxidants.
- c) Biochemistry of trace elements & vitamins.

A 2- Describe Structure and function of DNA, its replication, repair and recombination.

A 3- Identify Cytoskeleton & Cell junctions and their disorders in Dermatology

A 4- Discuss Molecular structure & its disorders in Dermatology of the following:

- a) basement membrane zone
- b) collagen
- c) elastin
- d) Ground substance.

A 5- Recognize the Molecular biology of following:

- a) stem cells
- b) skin tumors
- c) skin infections

A 6- Explain Principles of biotechnology and transdermal delivery of drugs.

A 7- Discuss Biochemistry of sex hormones and pituitary hormones.

B-Intellectual skills:

B1- Illustrate the following:

- a) steps of Porphyrin metabolism
- b) Cell junctions and their disorders in Dermatology

B2- Compare between types of antioxidants

(3) Course content:

Subjects	Total Teaching Hours
1. Porphyrin metabolism.	1
2. Oxidative stress & antioxidants.	1
3. Structure and function of DNA, its replication, repair and recombination.	1
4. Biochemistry of trace elements & vitamins.	1
5. Cytoskeleton & its disorders in Dermatology.	1
6. Cell junctions and	1

their disorders in Dermatology & Molecular structure of basement membrane zone & its disorders.	
7. Molecular structure of collagen & its disorders in Dermatology.	1
8. Molecular structure of elastin and its disorders in Dermatology.	1
9. Molecular structure of ground substance & its disorders in Dermatology.	1
10. Molecular biology of stem cells.	1
11. Tissue engineering in Dermatology.	1
12. Molecular biology of	1

skin tumors.	
13.Molecular biology of skin infections.	1
14.Principles of biotechnology and Principles of transdermal delivery of drugs.	1
15.Biochemistry of sex hormones and pituitary hormones	1
Total	15

(4) Teaching methods:

4.1: Lectures

(5) Assessment methods:

5.1: Written exams for assessment of knowledge and intellectual ILOS.

Assessment schedule:

MCQ Exam at the end of the semester

Final Written exam Assessment one semester after registration of MD degree

Percentage of each Assessment to the total mark:

MCQ Exam 20 % = 20 marks.

Final Written exam 80% = 80 marks.

(6) References of the course:

6.1: Hand books: conferences and Department staff handouts

6.2: Text books: Rook's text book of Dermatology Blackwell USA, 2010, Bologna Dermatology, Elsevier Limited, 2012, Andrew's Disease of the skin 2006, Habif clinical dermatology, electronic text book of dermatology

6.3: Journals: British Journal of dermatology, Journal of the American Academy of Dermatology, Archives of Dermatology International Journal of Dermatology, Journal of skin surgery,

6.1: Websites: WWW.eblue.org, archderm.ama.org, www.wiley.com, www.telemedicine.org, www.amazon.com

6.1: Others: MD Dermatology course of Cairo University

(7) Facilities and resources mandatory for course completion:

1-Fully Equipped Lecture halls

2-Department library

3-Faculty library

Course coordinator:

Head of the department:

Prof. Ibraheem Abu-Bakr Abdel Hamid, MD

Date: 3/4/2016