



# Related Cell biology & Genetics COURSE SPECIFICATION MD Dermatology

# Faculty of Medicine-Mansoura University

# (A) Administrative information

| (1) Programme offering the course:       | MD Dermatology                  |
|--|---------------------------------|
| (2) Department offering the programme:   | Dermatology, Andrology and      |
|  | STDs                            |
| (3) Department responsible for teaching  | Dermatology, Andrology and      |
| the course:                              | STDs                            |
| (4) Part of the programme:               | first part                      |
| (5) Date of approval by the Department's | 3/4/2016                        |
| council                                  |                                 |
| (6) Date of last approval of programme   | 9/8/2016                        |
| specification by Faculty council         |                                 |
| (7) Course title:                        | Related Cell biology & Genetics |
| (8) Course code:                         | DERM 615                        |
| (9) Total teaching hours:                | 15                              |
| (10) Number of credit hours              | 1                               |
|  |                                 |

### (B) <u>Professional information</u>

#### (1) Course Aims:

The broad aims of the course are as follows:

1- Provides the student with basic and advanced knowledge about Cell biology & Genetics related to the field of Dermatology

### (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) Basics of cells.
  - b) Cell membrane structure & dynamics.
  - c) Biology of skin ageing.
  - d) Principles of genetics.
  - e) Genomics, proteomics & bioinformatics.
- A 2- Describe the following & their disorders in Dermatology:
  - a) Cell movements
  - b) Cell cycle
  - c) Cell divisions.
- A 3- Discuss the biology of:
  - a) Keratinocyte
  - b) Hair follicle
  - c) Melanocyte
- A 4- Identify the following:

- a) Cell signaling & ion channels.
- b) Skin barrier.
- c) Cell biology of wound healing.
- d) Apoptosis.

# A 5- Explain the following:

- a) Structure & function of genes and chromosomes.
- b) Transcription & control of gene expression.
- c) Genetics of skin diseases
- d) Gene therapy & its role in dermatology
- e) Genetic counseling in Dermatology

### **B-Intellectual skills:**

# B-1- Compare between types of:

- 1. Cell movements
- 2. Cell junctions.

#### (3) Course content:

| Subjects   | <b>Total Teaching Hours</b> |
|--|-----------------------------|
| 1. Basics of cells.  | 1                           |
| <ul><li>2. Cell membrane structure</li><li>&amp; dynamics.</li></ul> | 1                           |
| 3. Cell movements & their disorders.                                 | 1                           |
| 4. Cell cycle & its disorders.                                       | 1                           |
| 5. Cell divisions & their  | 1                           |

| disorders.   |   |
|--|---|
| 6. Cell signaling & ion channels.  | 1 |
| 7. Skin barrier.   | 1 |
| 8. Biology of skin ageing.   | 1 |
| 9. Keratinocyte biology.   | 1 |
| 10.Hair follicle biology and Melanocyte biology.                                 | 1 |
| 11.Cell biology of wound healing. Apoptosis.                                     | 1 |
| 12.Principles of genetics.  Structure & function of genes & chromosomes.         | 1 |
| 13.Transcription & control of gene expression.                                   | 1 |
| 14.Genomics, proteomics & bioinformatics. Gene therapy & its role in dermatology | 1 |
| 15.Genetics of skin  | 1 |

| diseases.   | Genetic |    |
|-------------|---------|----|
| counseling  | in      |    |
| dermatology |         |    |
|             |         |    |
| 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, 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: <u>WWW.eblue.org</u>, archderm.ama.org, <u>www.wiley.com</u>, www.telemedicine.org, <u>www.amazon,com</u>

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