COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Program offering the course	**PhD**
(2) Department offering the program	**Anatomy and Embryology**
(3) Department responsible for teaching the course	**Anatomy and Embryology**
(4) Part of the program	**Second part**
(5) Date of approval by the Department`s council	**18/5/2016**
(6) Date of last approval of programme specification by Faculty council	**9-8-2016**
(7) Course title	**Human Anatomy and Embryology**
(8) Course code	**ANA 601**
(9) Total teaching hours	**15 (teaching)** **8 (practical)**

(B) Professional information:

(1) Course Aims:

The broad aims of this course are to prepare the candidate to:

a. Work properly as an anatomist and researcher and acquire skills needed to fulfill a professional requirement for successful career in the university.
b. Acquire a detailed knowledge of the human anatomy and embryology and related fields of medicine and be aware of recent visions in anatomical sciences.
c. Understand the application of the fundamentals and basics of the scientific research methodologies.

(2) Intended Learning Outcomes (ILOs):

A- Knowledge and Understanding:

K 1 Describe the process of fertilization, implantation and the developmental stages of the human body.

K 2 Recognize the functions of the fetal membranes and identify their anomalies.

K 3 Define the formation and differences among types of twins.

K 4 Discuss the general causes of congenital anomalies.

K 5 Recognize the development of all body systems and their congenital anomalies.

K 6 Recognize the medicolegal aspects in practice of human anatomy

K 7 Identify the surface landmarks of different structures of the body and the concepts of living anatomy.

K 8 Recognize the anatomy of a particular region of the body.

K 9 Discuss the relations between the different structures (arteries, veins, nerves and viscera).

K 10 Describe the anatomy and distribution of blood vessels

K 11 Recognize the distribution of various nerves and the effect of their lesions.

K 12 Identify the structure and function of musculoskeletal system.

K 13 Describe general and particular bony features.

K 14 Recognize the clinical problems of the selected region based on anatomical and embryological knowledge.

K 15 Discuss of the different neuroanatomical syndromes.

K16 Recognize ethics in the life sciences and the integrity and misconduct in life sciences research, including issues of data collection, publication, authorship and peer review

B– Intellectual skills:

By the end of the course the candidates should be able to

I 1 Integrate anatomical facts with embryological explanations

I 2 Correlate his/her knowledge in embryology with the clinical findings based on maldevelopment.

I 3 Apply the anatomy and embryology in solving and explaining different clinical problems of a particular region of the body.

I 4 Evaluate risk factors that can cause congenital malformations.

I 5 Integrate the anatomical facts with clinical problems.

I 6 Correlate the clinical aspects of the selected region with anatomical knowledge

I 7 Integrate his/her knowledge of neuroanatomy with those of neurophysiology and neurohistology

C– Practical skills:

By the end of the course the candidates should be able to

P 1 Dissect efficiently selected regions of the human body.

P 2 Assemble the different internal structures in cadavers during teaching.

P 3 Plan for developing his/her performance in anatomical teaching.

D- Communication & Transferable skills:

By the end of the course the candidates should be able to:

T 1 communicate efficiently to develop her/his teaching and research skills.

T 2 Support the learning of others when involved in a team work.

T 3 Demonstrate self-awareness and motivation and ability to identify his own needs.

T 4 Be prepared for self-lifelong learning.

T 5 Manage time and manipulate information effectively.

(3) Course content:

Subjects	Lectures	Laboratory
1. General embryology	15	15
2. Special embryology	30	30
3. Osteology	10	10
4. Abdomen	20	20
5. Pelvis	20	20
6. Upper limb	20	20
7. Lower limb	20	20
8. Thorax	15	15
9. Head and neck	30	30
10. Neuroanatomy	30	30

11. Special topics: 1. Autonomic plexuses 2. Vertebral column 3. Hand Grip 4. Sex chromosomes 5. Neuroanatomy of memory, Neuroanatomy of language 6. Cerebral dominance 7. Dermatomes and Myotomes 8. Neural crest 9. Medicolegal aspects 10. Ethics	15	30
Total	225	240

(4) Teaching methods:

4.1: Lectures

4.2: Practical sessions

4.3: Group discussion

4.4: Presentation by students

(5) Assessment methods:

5.1: **Written exam (one paper, 3 hours)** for assessment of K1-16, I1-7

5.2: **Oral Exam** for assessment of K1-16, I1-7,T1-5

5.3: **Practical exam for** assessment of **P1-3**

Assessment schedule:

Final Exam (300 marks): at the end of the course

Percentage of each Assessment to the total mark:

Written exam: 150 marks (50%) essay: 120 marks, MCQ: 30 marks

Oral exam: 75 marks (25%)

Practical exam: 75 marks (25%)

(6) References of the course:

6.1: **Hand books:** Department Book

6.2: **Text books:**

Langman's Embryology.

Keith L. Moore Embryology.

Student's Grants Atlas.

Netter's Atlas.

Snell's Atlas.

Grey's Anatomy.

6.3. Websites:

http://www.indiana.edu/~anat550/

http://www.embryology.ch/indexen.html

6.4. Journals:

- **Advances in Anatomy Embryology and Cell Biology**

http://www.springer.com/west/home/life+sci?SGWID=4-10027-69-173622675-0

- **Development**

http://dev.biologists.org/

(7) Facilities and resources mandatory for course completion:

- Lecture room
- Anatomy dissection lab, cadavers, plastinated specimens and models
- Computers, data show projector and internet connection

Course coordinator: Prof. Adel Al-Hawary

Head of the department: Prof. Adel Al-Hawary

Date: 18/5/2016