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	**First part**
(5) Date of approval by the Department`s council	**18/5/2016**
(6) Date of last approval of program specification by Faculty council	**9-8-2016**
(7) Course title	**Special Embryology**
(8) Course code	**ANA 601 BE**
(9) Credit hours	**2 (Theoretical)**

(B) Professional information:

(1) Course Aim:

The main aim of this coarse is to acquire deep insights into the development of body systems and organs in various weeks of pregnancy and the congenital anomalies related to body organs.

(2) Intended Learning Outcomes (ILOs):

(A) Knowledge and Understanding:

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

K 1 Describe the developmental stages of the various organs and systems in the body.

K 2 Describe the development of body cavities.

K 3 Define all the medical terminology used in the field of embryology.

K 4 Recognize the causes of all forms of congenital anomalies.

K 5 Discuss clinical conditions related to maldevelopment
K6 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 achieve and demonstrate the following intellectual qualities:

I 1 Integrate anatomical events in human body with embryological basis

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

I 3 Evaluate risk factors that can cause congenital malformations.

(3) Course content:

Subjects	Lectures
1. Body cavity and respiratory system development and anomalies	**3**
2. Cardiovascular system development	**3**
3. Congenital malformations of the heart and great vessels	**3**
4. Branchial apparatus	**2**
5. Urogenital system development	**2**
6. Female and male reproductive systems	**2**
7. Maldevelopment of the urinary system	**1**
8. The nervous system development	**3**
9. Abnormalities of the nervous system	**1**
10. Ear and Eye development and anomalies	**2**
11.Digestive system development	**4**
12.Abnormalities in the gastrointestinal system	**2**
13. Ethics	**2**
Total	**30**

(4) Teaching methods:

4.1: Lectures

4.2: Group discussion

4.3: Presentation by students

(5) Assessment methods:

Written exam (one paper, 3 hours) for assessment of all ILOs

Assessment schedule:

Final Exam (200 marks): at the end of the course

Percentage of each Assessment to the total mark:

Written exam: 200 marks (100%): Essay 160 marks (80%), MCQ: 40 marks (20%).

(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.

6.2: Websites:

https://embryology.med.unsw.edu.au/embryology/index.php/Main_Page

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

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

http://embryo.soad.umich.edu/links/links.html

6.3: Journals:

- **Human Genetics & Embryology**
  http://www.omicsonline.org/human-genetics-embryology.php
- **Advances in Anatomy Embryology and Cell Biology**
  http://www.springer.com/west/home/life+sci?SGWID=4-10027-69-173622675-0
- **HSOA Journal of Human Genetics & Clinical Embryology**
  http://www.heraldopenaccess.us/journals/Human-Genetics-&-Clinical-Embryology/

- Development
  http://dev.biologists.org/
- Current Topics in Developmental Biology
  http://www.sciencedirect.com/science/journal/00702153

(7) Facilities and resources mandatory for course completion:

- Lecture room

- Computers, data show projector and internet connection

Course coordinator: Prof Mostafa Abdelmoneem

Head of the department: Prof. Adel Al-Hawary

Date: 18/5/2016