



## **Program Specification** **for Master Degree in Anatomy**

**Program type:** single

**Program code:** ANAT 801 - 802

**Department offering the program:** Department of Anatomy & Embryology

**Total credit points:** 150

**Academic year:** 2016/2017

**Program Coordinators:**

**External evaluators:** Prof. Dr. Kariman El-Gohari, Professor of Anatomy and Head of the  
Anatomy department, Ein-Shams University

### **I. Program aims**

- To advance the scientific knowledge concerning the normal structure of the human body at the level of organs and organ systems, with the study of the normal growth and development relevant to anatomical topics.
- To correlate anatomical facts with their clinical applications.
- To provide appropriate ethical and professional education necessary for handling cadavers.
- To provide appropriate ethical and professional education necessary for dealing with professors, colleagues and students.

### **II. Intended learning outcomes of program (ILOs)**

#### **1- Knowledge and understanding:**

*By the end of the course, the candidate should master:*

- a) The detailed description of the structures of the different tissues, organs and systems of the human body.

- b) Ascertaining the surface landmarks of the underlying bones, muscles, tendons, and internal structures (main nerves, vessels and viscera).
- c) The correlation of the anatomical facts to clinical problems.
- d) The explanation of the different stages of human development, evolution and growth further to the different congenital anomalies.
- e) The human anatomy in comparison with different animal species.

## **2- Intellectual skills:**

*By the end of the course, the students should be able to:*

- a) Identify the different surface markings and determine the position or course of internal structures.
- b) Identify the different internal structures in cadavers and preserved specimens.
- c) Interpret the normal anatomical structures on radiographs, C.T. scans and magnetic resonance images.
- d) The correlation of the anatomical facts to clinical problems.

## **3- Professional and practical skills:**

*By the end of the course, the students should be able to:*

- a) Dissect probably different regions of the human body.
- b) Interpret some clinical findings in relation to anatomical and developmental basis.

## **4- General and transferable skills:**

*By the end of the course, the students should be able to:*

- a) Communicate with the students to gain their confidence.
- b) Value the ethics and respect to all individuals inside and outside the dissecting room and pay appropriate respect to the cadavers.
- c) Recognize the scope and limits of their role as candidates as well as the necessity to seek and apply collaboration with other workers.

- d) Be responsible towards work.
- e) Maintain a professional image concerning behavior, dress and speech.
- f) Appreciate team working.
- g) Achieve Computer skills necessary to make use of medical data bases and use the internet for communication.
- h) Show administrative skills that enable him to fulfill the paper work needed.
- i) Show leadership skills that enable him to organize work and lead the junior and paramedical staff.
- j) Understand different scientific methodologies and have critical reading abilities.
- k) Write scientific article according to the basics of scientific research.

### III. Academic standards

1. Academic reference standards: The academic standards of anatomy program is adopted and accredited by the departmental council

2. External References for Standards:

The curriculum offered by medical schools - London and Oxford Universities - UK.

### IV. Program admission requirements

According to the Faculty of Medicine, Cairo University Bylaws for Postgraduate Programs (July 2009), applicants should have MBChB or equivalent degree. According to Cairo University requirements, all applicants for postgraduate studies should fulfill preliminary courses on the following subjects: Medical statistics 1 – English language (TOEFL or equivalent degree) – Computer skills (ICDL) or equivalent computer course offered by the medical education center (MEDC). Admission to the program is open during July. Training prior to registration may be accredited according to departmental and hospital evaluation. Admission for the program is open during July.

### V. Program structure and contents.

Program duration: Three academic years.

Program structure: Total Credit points 150

**First part: one academic year (table 1) points**

55 credit

Candidate should fulfill the following courses:

- Compulsory courses

One academic year (30 weeks Starts on October) 10 credit points

- Embryology
- Neuroanatomy (a)

▪ Elective courses

Select one of group A (Histology – Radiological Anatomy) 2 credit points

Select two of group B (Critical Reading – Scientific writing – Evidence Based  
Medicine – Medical Statistics 2 – Medical ethics – Communication skills)

1 credit point

▪ Scientific activities

2 credit points

▪ Practical training program

40 credit points

**Second part: two academic years (table 2)**

65 credit points

Candidate should fulfill the following courses:

▪ Compulsory courses

One academic year (30 weeks)

12 credit points

▪ Elective courses

4 credit points

▪ Scientific activities

4 credit points

▪ Practical training program

45 credit points

**Master Thesis:** completed during second part

30 credit points

**Table 1: First part**

<b>Courses</b>	<b>Course modules</b>	<b>Credit points</b>	<b>total</b>	<b>ILOs</b>
<b>Compulsory courses</b> (One academic year)				
Embryology	• General	2	5	1-d 3- b
	• Special	3		
Neuroanatomy	• Gross Morphology	4	5	1- a, b, c 2- a, b, c, d 3- a, b
	• Tractology	1		
<b>Elective Courses (A):</b> Candidate choose one course				
<ul style="list-style-type: none"> <li>• Histology</li> <li>• Radiological Anatomy</li> </ul>		2 2	2	1- a
<b>Elective Courses (B):</b> Candidate choose two courses				
(MEDC)		0.5	1	4- a, b, c, d, e, f, g, h, i
▪ Critical Reading		0.5		
▪ Scientific writing		0.5		
▪ EBM		0.5		
▪ Medical ethics		0.5		
▪ Medical statistics II		0.5		
▪ Communication Skills		0.5		
<b>Scientific activities</b>			2	4- a, b, c, d, e
<b>Practical training program</b>			40	1- A 2- a, b 3- a 4- b, c, d, e, f

**Table 2: Part 2**

item	Credit points	Total	ILOs.
<b>Compulsory courses</b>			
<ul style="list-style-type: none"><li>• <b>Descriptive Anatomy</b></li><li>• <b>Advanced Neuroanatomy</b></li></ul>	10 2	12	1- a, b, c 2- a, b, c, d
<b>Elective courses:</b> Candidate choose one course			
<ul style="list-style-type: none"><li>• <b>Comparative Anatomy</b></li><li>• <b>Anthropology</b></li></ul>	4 4	4	1- d, e
<b>Scientific activities</b>	4	4	4- a, b, c, d, e, f, g, h, i
<b>Master thesis</b>	30	30	4- f, g, h, j, k
<b>Practical training program (phase 2)</b>	45	45	2- a, b, c, d 3- a, b, c, d 4- b, c, d, e, f

### **Practical Training Program**

- **First phase (Basic Training):**

According to the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009), all the candidates should have a basic dissection training for one academic year. During this period the candidates will attend the compulsory courses. They also should complete the elective courses.

- **Second phase:**

All candidates should complete the practical training program in the department. They should spend two academic years in order to acquire the needed credit points. During this period the candidates will attend the practical sessions and share in the demonstration of anatomy for the students of the following categories: 1st and 2nd year medical students – students of the 1st and 2nd year of physiotherapy – 1st year dentistry student – 1st year pharmacy students under the supervision of senior staff members.

### **Master Thesis**

All master-degree candidates should prepare a thesis in one of the following fields: gross anatomy – radiological anatomy – animal experimental studies – teratology - anthropology. The department and the ethical committees must approve the protocol of the research. The thesis should include a review part and a research part. The thesis supervised by one or more senior staff members from the Anatomy Department and may include other specialties according to the

nature of the research. The thesis should be evaluated and approved by a committee of three professors including one of the supervisors and an external professor.

### **Scientific Activities:**

The candidates should participate in the scientific activities of the departments such as:

- Preparing and presenting essays in one of important anatomical subjects.
- Attending seminars (including recent topics and controversial issues) once weekly. Candidates are expected to participate in the discussions.
- Scientific meetings arranged by the department.
- Attendance of Thesis discussions
- Attendance of the annual conferences of Anatomical Society.

Each activity is monitored and given credit points registered in a special section in the logbook. The candidate should collect the required points before allowed to sit for final exam.

## **VI. Regulations for progression and program completion**

After collecting the required credit points for the respective courses, the first phase of the practical training, and the scientific activities, the candidate will be eligible to sit for the first part examination. In case the student fails to pass the examination, he may proceed in the practical training and can resubmit for the next examination. After passing the first part, the student submits a protocol for Master Thesis at the beginning of the second part. Before submitting to the final examination he/she should finish the thesis and get approval, complete phase 2 of the training program, and collect the required credit points. The candidate will receive his degree after passing this final examination. Master degree should be obtained within a maximum of 6 years after registration date.

## **VII. Assessment**

### **Supervision & Monitoring of the Training Program:**

According the Faculty of Medicine, Cairo University Bylaws for practical Training Programs, professors carry continuous assessment during the program. A practical training program logbook will be kept for each candidate to document all his/her practical activities as well as his/her participation in different scientific activities. The head of the department should allow the candidates to undergo the final examination when they complete their training program and collect the credit points needed.

### **A: Assessment Tools:**

#### **1. Final Exam Part I**

- Embryology and Neuroanatomy - a: three-hours written exam (including long and short essays as well as multiple choice questions) + practical and oral exams.
- Histology or Radiological anatomy: one-hour written exam (including long and short essays as well as multiple choice questions) + practical and oral exams.

#### **2. Final Exam Part 2**

- Descriptive Anatomy and Neuroanatomy (b) + Comparative Anatomy or Anthropology: distributed in two written exam papers three-hours each (including long and short essays as well as multiple choice questions) + practical and oral exams.

**B: ASSESSMENT SCHEDULE:**

***Firat part:***

The written examination (Three-hour) includes short and long essay questions, and MCQ (including problem solving).

*This will be followed by the practical and oral examinations in separate days*

***Second part:***

The written examinations will be held in two days (Three-hour each) include short and long essay questions, and MCQ (including problem solving).

*This will be followed by the practical and oral examinations in separate days*

**C: WHEIGHING OF ASSESSMENT: Marks allocated to courses**

*Example*

Course	Written	Oral	Practical	Total
<b>First part</b>				<b>600</b>
Embryology & Neuroanatomy (a)	250	125	125	<b>500</b>
Histology or Radiological Anatomy	50	25	25	<b>100</b>
<b>Second part</b>				<b>800</b>
Descriptive Anatomy & Neuroanatomy (b)	350	125	125	<b>600</b>
Comparative Anatomy or Anthropology	120	80	-----	<b>200</b>

Remarks

- It is mandatory to pass all papers of the written exams separately
- Passing mark in a written exam is  $\geq 60\%$



## VIII. Evaluation of program intended learning outcomes:

Evaluator	Tool	Sample
1. Senior Students	Questionnaire at the end of the program	All the PG students
2. Alumni	The faculty is currently developing an Alumni office for postgraduates	Not yet determined
3. External Evaluators	Review the program and courses Attending the final exam.	Once before implementation Bi-annual report
4. Quality Assurance unit	Annual program review	

### Date of approval by department council

*Program Coordinators*

**Prof. Dr. Hoda Mahmoud El-Aasar**

Prof. Dr. Sherief Zaky

Prof. Dr. Ehab Abdel Aziz

*Head of Department*

**Prof. Dr. Hoda Mahmoud El-Aasar**