



Program Specification for Master Degree In Andrology

Program type: Single

Department offering the program: Andrology Department

Program Code: ANDR 800

Total credit points: 145

Academic year: 2010/2011 **Revised:** Nov 2016

Program Coordinators: Prof. Ibrahim Fahmy

Associate Prof. Yasser El-Khayat

External evaluator: Prof. Ibrahim Bakr AbdelHamid: Professor of and head of Dermatology and Andrology department, Faculty of Medicine, Mansoura University.

I. Aim of Program

The program is a professional degree that enables candidates to specialize in the area of reproductive health including male fertility and infertility, sexual medicine and sexually transmitted infections (STIs). The candidates should achieve satisfactory levels of basic knowledge, clinical and surgical skills in all aspects of andrology practice, interact with community problems, respect ethical values according to community culture, and promote their medical standards through engaging in continuing medical education. The program also aims to introduce the candidate to the basics of scientific medical research.

II. Intended Learning Outcomes of Program (ILOs)

A. Knowledge and Understanding: By the end of the program the candidate should be able to:

- 1) Recognize the basic scientific knowledge related to human reproduction including male fertility, human sexuality and sexually transmitted pathogens.
- 2) Identify and discuss common andrological problems related to male infertility, male sexual dysfunction and STIs.
- 3) Distinguish the basic pathology underlying different andrological disorders
- 4) Understand the psychological basis of human sexuality and sexual disorders
- 5) Understand basic concepts of andrological laboratory procedures related to assisted conception, male infertility, and STIs
- 6) Describe different management modalities for common andrological problems including male infertility, sexual dysfunctions and STIs.
- 7) Recognize the basic principles of surgical procedures that enables the candidate to perform surgeries related to male infertility and sexual dysfunctions

B. Intellectual Skills: By the end of the program the candidate should be able to:

- 1) Analyze symptoms & signs, correlate them to the basic knowledge he had acquired and construct a differential diagnosis for common andrological complaints.
- 2) Design an appropriate diagnostic plan for evaluation of common andrological complaints taking into consideration the nature of the clinical situation and the risks, benefits and costs to the patient.
- 3) Interpret the results of different investigations related to sexual dysfunctions, male infertility and STIs.
- 4) Set up treatment plans for common and rare andrological problems taking into account the cultural and individual needs.

C. Professional and Practical Skills: By the end of the program the candidate should be able to:

- 1) Collect clinical data specially the art of history taking in sensitive issues such as sexual dysfunction and STIs.
- 2) Examine and identify signs of common and rare andrological disorders.
- 3) Perform office clinical procedures related to male infertility, and erectile dysfunction.
- 4) Perform simple andrological laboratory procedures related to assisted reproduction
- 5) Offer proper medical treatment for STIS, male andrological problems including male infertility and sexual dysfunctions.
- 6) Perform basic surgical skills and manage common surgical complications related to the external male reproductive organs.
- 7) Offer surgical interventions whenever indicated to infertile males and male with sexual dysfunctions.
- 8) Manage all andrological emergencies properly.

D. General and Transferable Skills: By the end of the program the candidate should be able to:

- 1) Communicate with the patients to gain their confidence.
- 2) Respond effectively to a patient's emotional and psychosocial concerns
- 3) Communicate with other health care providers.
- 4) Appreciate team working.
- 5) Achieve Computer skills necessary to make use of medical data bases and use the internet for communication.
- 6) Show administrative skills that enables him to fulfill the paper work needed
- 7) Show leadership skills that enable him to organize work and lead the junior sand paramedical staff.
- 8) Understand different scientific methodologies and have critical reading abilities
- 9) Write scientific article according to the basics of scientific research.

III. Academic standards

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

2.External References for Standards:

The program is unique in its structure and content, it includes significant parts of the following programs and incorporates other diagnostic and surgical procedures

- a- Area of andrology and reproductive medicine: (The curriculum offered by the European Academy of Andrology, EAA)
- b- Area of Sexual medicine: (The program offered by the International society of Sexual Medicine).
- c- Area of STIs: Parts of the Specialty training curriculum For genito-urinary medicine, Joint Royal Colleges of Physicians Training Board UK.

IV. Program Admission Requirements

According the Faculty of Medicine, Cairo University Bylaws for Post Graduate 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 I – 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.

Post graduate who have masters in gynecology, urology or general surgery or its equivalent degrees can also apply for the master degree in andrology provided that vacancies are available. In such case candidates will be exempted from the first part courses and the first phase of the residency training except the psychiatry course including the psychiatry examination its rotation (3 months) to collect the required credit points for the first part. The second phase of the residency-training program will be tailored to fit their previous training. They will spend 18 months in the department during which they will attend the andrology course.

V. Program Structure and Contents

Program duration: Three academic years.

Program structure: Total Credit points 145

- **First part: 1.5 years - Total credit points 51 - (Table 1)**
 - Compulsory courses; one academic year (30 weeks)
 - Basic sciences courses 4 credit points
 - Basic Psychiatry course 2 credit points
 - General surgery course 3 credit points
 - Elective courses 1 credit points
 - Scientific activities 1 credit points
 - Residency training program Part 1 40 credit points

“Basic training” for 18 months
(9 months General Surgery + 3 months “psychiatry + 6 months Andrology)

- **Second part: 1.5 years - Total credit points 74 - (Table 2)**
 - Compulsory courses; one academic year (30 weeks)
 - Andrology course - 5 modules 12 credit points
 - Scientific activities 3 credit points
 - Residency training program Part 2 59 credit points
“Special Andrology” for one and half year

- **Master Thesis:** completed during second part 20 credit points.

Table 1: First part

Courses		Credit Points		ILOs
Code	Title	CPs	Total	
COMPULSORY COURSES (One academic year)				
ANDR 801	Anatomy and Embryology	1	9	A ₁ , B ₁
ANDR 803	Medical Biochemistry Molecular Bio.	1		A ₁ , A ₅ , B ₁
ANDR 817	Basic Psychiatry & Psychosexual Disorders	2		A ₁ , A ₄ , B ₁ D ₁ , D ₂ , D ₃
ANDR 806	Medical Microbiology and Immunology	1		A ₁ , A ₅ , B ₁
ANDR 817	Pathology	1		A ₁ , A ₃ , B ₁
ANDR 809	General Surgery	3		A ₇ , B ₁ D ₁ , D ₂ , D ₃
ELECTIVE COURSES (MEDC) choose 2 courses				
MEDC 1	Critical Reading	0.5	1	D ₅ , D ₆ , D ₈ , D ₉
MEDC 2	Scientific writing	0.5		
MEDC 3	Evidence-Based Medicine	0.5		
MEDC 4	Medical statistics II	0.5		
MEDC 5	Medical ethics	0.5		
MEDC 6	Communication Skills	0.5		
SCIENTIFIC ACTIVITIES				
1 st Part	Scientific activities	1	1	D ₃ , D ₄ , D ₅ , D ₈ , D ₉
RESIDENCY TRAINING PROGRAM (Basic training)				
ANDR 809 C1	Residency training program	40	40	B ₁ , C ₆ , C ₈ D ₁ , D ₂ , D ₃ , D ₄ , D ₅ , D ₆

Table 2: Second part

Courses Code Title		Credit Points		ILOs
		CPs	Total	
COMPULSORY COURSES (Two academic years)				
ANDR 835 Basic Andrology				
ANDR 835 Ta	Sexually Transmitted Diseases	3	12	A ₂ , A ₆ , B ₁ , B ₂ , B ₃ , B ₄ , D ₁ , D ₂ , D ₃ , D ₄
ANDR 835 Tb	Sexual Medicine and Surgery	3		
ANDR 835 Tc	Male reproductive Medicine and Surgery	3		
ANDR 835 Td	Assistance Reproduction	1.5		
ANDR 835 Te	Andrology Related Disorders	1.5		
SCIENTIFIC ACTIVITIES				
^{2nd} Part	Scientific activities	3	3	D ₃ , D ₄ , D ₅ , D ₈ , D ₉
RESIDENCY TRAINING PROGRAM (Special Andrology)				
ANDR 809 C2	Residency training program	59	59	B ₁ , B ₂ , B ₃ , B ₄ , C ₁ , C ₂ , C ₃ , C ₄ , C ₅ , C ₇ , C ₈ D ₁ , D ₂ , D ₃ , D ₄ , D ₅ , D ₆ , D ₇
MASTER THESIS				
	Master Thesis	20	20	D ₈ , D ₉

Residency Training Program

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

According to the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009), all the students should have a basic training for 18 months. They will start the residency program by spending 3 orientation months in the Andrology department. Thereafter they will spend 6 months in general surgery department (pediatric surgery), 3 months in surgical emergencies and 3 months in psychiatry department. In addition, they will spend the remaining 3 months in Andrology department. During this period the students will attend the basic sciences courses, the psychiatry course as well as the general surgery course. They also should attend the elective courses.

- **Second Phase (Special Training):**

All students should complete the special part of the residency-training program in the andrology department. They should spend 18 months in order to complete the needed credit points. The student is expected to attend the outpatient clinics, inpatient section, the andrology Lab, and the operating room to share in patients care under the supervision of senior staff members. During this period the students will attend the andrology course, prepare his thesis and participate in the scientific activities of the department.

NB: The details of the training program are provided in separate document. The third phase of residency training (advanced training) is part of the MD degree

ANDROLOGY MASTER DEGREE PROGRAM MATRIX

Courses		A Knowledge and Understanding							B Intellectual Skills				C Professional Skills								D General and Transferable										
		1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7	8	8	1	2	3	4	5	6	7	8	9	
<i>ANDR 801</i>	Anatomy and Embryology	x							x																						
<i>ANDR 803</i>	Medical Biochemistry Molecular Bio.	x				x			x																						
<i>ANDR 817</i>	Basic Psychiatry/Psychosexual Dis.	x			x				x													x	x	x							
<i>ANDR 806</i>	Medical Microbiology/Immunology	x				x			x																						
<i>ANDR 817</i>	Pathology	x		x					x																						
<i>ANDR 809</i>	General Surgery							x	x													x	x	x							
<i>ANDR 835 Ta</i>	Sexually Transmitted Diseases		x				x		x	x	x	x										x	x	x	x						
<i>ANDR 835 Tb</i>	Sexual Medicine and Surgery		x				x		x	x	x	x										x	x	x	x						
<i>ANDR 835 Tc</i>	Male reproductive Medicine/Surgery		x				x		x	x	x	x										x	x	x	x						
<i>ANDR 835 Td</i>	Assistance Reproduction		x				x		x	x	x	x										x	x	x	x						
<i>ANDR 835 Te</i>	Andrology Related Disorders		x				x		x	x	x	x										x	x	x	x						
<i>MEDC 1</i>	Critical Reading																									x	x		x	x	
<i>MEDC 2</i>	Scientific writing																									x	x		x	x	
<i>MEDC 3</i>	Evidence-Based Medicine																									x	x		x	x	
<i>MEDC 4</i>	Medical statistics II																									x	x		x	x	
<i>MEDC 5</i>	Medical ethics																									x	x		x	x	
<i>MEDC 6</i>	Communication Skills																							x	x	x	x				
<i>1st Part</i>	Scientific Activities part 1																							x	x	x			x	x	
<i>2nd Part</i>	Scientific Activities part 2																							x	x	x			x	x	
<i>ANDR 809 C1</i>	Basic Training Program																		x		x	x	x	x	x	x	x				
<i>ANDR 809 C2</i>	Special Training Program								x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
	Master																													x	x

Master Thesis

All master-degree students should prepare a thesis in one of the four main domains of Andrology (Male Infertility, Sexology, Assisted conception and STIs). 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 is supervised by one or more senior staff members from the Andrology 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. Approving the thesis is mandatory to allow the student to set for the final exam.

Scientific Activities

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

- *Journal club.*
- *Seminars (including recent topics and controversial issues). Students are expected to participate in the discussions.*
- *Scientific meetings arranged by the department.*

Each activity is monitored and given credit points registered in a special section in the residency-training logbook. The student 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 residency training, and the scientific activities, the student will be eligible to sit for the first part examination. In case the student fails to pass the examination, he/she may proceed in the clinical 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 special training program, and collect the required credit points. The candidate will receive his/her degree after passing this final examination. Master degree should be obtained within a maximum of 6 years after registration date.

VII. Assessment

A: Assessment Tools

- **Supervision and Monitoring of Training Program**

According the Faculty of Medicine, Cairo University Bylaws for Residency Training Programs, coordinators carry continuous assessment during the program. A residency training logbook including scientific activities will be kept for each student to document all his/her clinical, laboratory and/or operative activities as well as his/her participation in different scientific activities. The head of the department should allow the students to undergo the final examination when they complete their training program and collect the credit points needed.

- **Formal Assessment**

According the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009). Students should be assessed at the end of first part and of the second part.

1. First Part Final Exam:

- **Psychiatry:** Two-hour written exam (including short essay and multiple choice questions) + oral exam

- **Anatomy and Embryology:** one-hour written exam (including short assay and multiple choice questions) + oral exam
- **Pathology:** one-hour written exam (including short assay and multiple choice questions) + oral exam
- **Biochemistry:** one-hour written exam (including short assay and multiple choice questions) + oral exam
- **Microbiology / Immunology:** one-hour written exam (including short assay and multiple choice questions) + oral exam
- **General Surgery:** Three-hour written exam (including short assay and multiple choice questions) + oral exam + clinical exam

2. Second Part Final Exam Part 2:

- **Andrology:** Four written exams (Three-hours each) including short assay questions, and MCQ (including problem solving) + oral exam + clinical exam

B: Assessment Schedule:

1. First Part Final Exam:

The written exam will be held in April/October (four days):

Day one: psychiatry (2 hours)

Day two: anatomy and pathology (2 hours)

Day three: microbiology and biochemistry (2 hours)

Day four: general surgery (3 hours)

This will be followed by the clinical and oral exams in separate days

2. Second Part Final Exam:

The written exam will be held in May/ November (four days):

Day one: STIs

Day two: Male infertility

Day three: Sexual Medicine

Day four: Assisted Reproduction and Andrology related topics

This will be followed by the clinical and oral exams in separate days

C: Weighing Of Assessment (Marks allocated to courses):

(50 marks for each credit point)

Courses		Marks			
Code	Title	Written	Oral	Clinical	Total
FIRST PART					
ANDR 801	Anatomy and Embryology	25	25	---	100
ANDR 817	Pathology	25	25		
ANDR 803	Medical Biochemistry Molecular Bio.	25	25	---	100
ANDR 806	Medical Microbiology/Immunology	25	25		
ANDR 817	Basic Psychiatry/Psychosexual Dis.	50	50	---	100
ANDR 809	General Surgery	80	35	35	150
Total First Part					450
SECOND PART					
ANDR 835 Ta	Sexually Transmitted Diseases	80	140	140	600
ANDR 835 Tb	Sexual Medicine and Surgery	80			
ANDR 835 Tc	Male reproductive Medicine/Surgery	80			
ANDR 835 Td	Assistance Reproduction	80			
ANDR 835 Te	Andrology Related Disorders				
Total Second Part					600

Remarks

- It is mandatory to pass all the papers of written exams separately.
- The passing mark in any 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. Stakeholders	A meeting will be arranged during annual conference of the department	Available representatives from: <ul style="list-style-type: none">- Army hospitals- National medical insurance- Medical syndicate- Ministry of health
4. External Evaluators	Review program and courses Attending the final exam	Once before implementation Bi-annual report
5. College Quality Assurance committee	Annual program reviewer	

Signatures

Date of approval by department: Sep 2013 Revised Nov 2016

Program coordinator: Prof. Ibrahim Fahmy

Program Coordinators

Prof. Ibrahim Fahmy

Associate Prof Yaser El-Khayat

Head of Department

Prof Hussein Ghanem