



Program Specification for Medical Doctorate Degree In Andrology

Program type: Single

Department offering the program: Andrology Department

Program Code: ANDR 900

Total credit points: 245 (100 + 145 for the previous master degree)

Academic year: Program started 2009/2010 - **Modified:** 2013/2014 **Revised** Nov 2016

Program Coordinators: Prof. Ibrahim Fahmy / A. Prof. Amr Gadallah

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 an academic degree that enables candidates to provide training and research in the area of reproductive health including male fertility and infertility, assisted conception, sexual medicine and sexually transmitted infections (STIs). The candidates should master clinical and surgical skills in all aspects of andrology practice, interact with community problems, and respect ethical values according to community culture. The candidate should acquire the scientific knowledge and skills that enables them to engage in medical education and scientific medical research.

II. Intended Learning Outcomes of Program (ILOs)

A. Cognitive: By the end of the program the candidate should be able to:

1. Master the basic scientific knowledge related to human reproduction including male fertility, human sexuality and sexually transmitted infections.
2. Recognize the basic research regarding pathophysiology of different andrological problems related to male infertility, assisted reproduction, male sexual dysfunction and STIs
3. Describe in depth and detail the development of current management modalities for different andrological problems including male infertility, assisted reproduction, sexual dysfunctions and STIs
4. Aware of the areas of research in the field of andrology leading to development of new diagnostic procedures and innovative therapies
5. Acquire advanced knowledge in one of the basics fields related to andrology (chosen by the candidate)
6. Analyze symptoms & signs, correlate them to the basic knowledge he had acquired and construct a differential diagnosis for rare andrological complaints.

7. Design an appropriate diagnostic plan for evaluation of rare andrological complaints taking into consideration the nature of the clinical situation and the risks, benefits and costs to the patient.
8. Set up treatment plans for rare andrological problems taking into account the cultural and individual needs.
9. Acquire the ability to develop new and innovative solutions to different andrological problems
10. Acquire advanced experience in one of the basics fields related to andrology (chosen by the candidate)

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

1. Collect clinical data for rare andrological disorders.
2. Perform new clinical procedures related to male infertility, assisted reproduction and erectile dysfunction.
3. Perform common andrological techniques and procedures related to basic research in the field of andrology
4. Offer proper medical treatment for rare and uncommon STIS, male andrological problems including male infertility and sexual dysfunctions.
5. Perform advanced surgical skills and manage uncommon surgical complications related to the external male reproductive organs.
6. Acquire extra specific skills in one of the basics fields related to andrology (chosen by the candidate)

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

1. Communicate with other colleagues, researchers and health care providers.
2. Promote special interest in one of the areas related to andrology.
3. Master extra computer skills necessary to make use of medical databases and use the Internet for communication.
4. Show administrative and leadership skills that enables him to f to organize work and lead the junior staff.
5. Acquire abilities to train and teach students and junior staff members
6. Understand different scientific methodologies and have critical reading abilities
7. 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:

This program is unique since it incorporates different topics from different disciplines

IV. Program Admission Requirements

According to the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009), applicants should have a Master degree or equivalent accredited degree in the same specialty. Admission to the program is open during January and July. The training prior to registration may be accredited according to departmental and hospital evaluation.

V. Program Structure and Contents

Program duration: Two academic years.

Program structure: Total Credit points 245 (Table 1)

- **Previous Master degree:** **145 points**
- **Compulsory courses; two academic year (30 weeks each)**
 - Andrology course - 5 modules **16 credit points**
- **Elective courses** choose two courses **4 credit points**
 - Genetics of Male reproduction 2 points
 - Molecular Biology of Male Reproduction 2 points
 - Male Reproductive Endocrinology 2 points
 - Clinical Pathology of Male Reproduction 2 points
- **Scientific activities** **4 credit points**
- **Residency training program Part 3** **36 credit points**
“Advanced Andrology” for two years
- **Medical Doctorate Thesis:** **40 credit points**

Table 1: First part

Courses		Credit Points		ILOs
Code	Title	CPs	Total	
Previous master degree			145	
Compulsory courses (two academic year)				
<i>ANDR 935 Ta</i>	Sexually Transmitted Diseases		16	A ₁ , A ₂ , A ₃ , A ₄ B ₁ , B ₂ , B ₃ , B ₄ C ₁ , C ₂ , C ₃ , C ₄ , C ₅
<i>ANDR 935 Tb</i>	Sexual Medicine and Surgery			
<i>ANDR 935 Tc</i>	Male reproductive Medicine and Surgery			
<i>ANDR 935 Td</i>	Assistance Reproduction			
<i>ANDR 935 Te</i>	Andrology Related Disorders			
Elective courses choose 2 courses				
<i>ANDR 910</i>	Genetics of Male reproduction	2	4	A ₅ B ₅ C ₆ D ₂
<i>ANDR 902</i>	Molecular Biology of Male Reproduction	2		
<i>ANDR 908</i>	Male Reproductive Endocrinology	2		
<i>ANDR 922</i>	Clinical Pathology of Male Reproduction	2		
Scientific activities				
^{1st}	Scientific activities		1	D ₅ , D ₆ , D ₇
RESIDENCY TRAINING PROGRAM				
<i>ANDR 809 C1</i>	Advanced training		36	B ₁ , B ₂ , B ₃ , B ₄ , B ₅ C ₁ , C ₂ , C ₃ , C ₄ , C ₅ D ₁ , D ₃ , D ₄ , D ₅
Thesis				
	Thesis		40	A ₅ B ₅ C ₆ D ₁ , D ₃ , D ₆ , D ₇

Residency Training Program

- **Third Phase:**

According to the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009), the duration of the advanced training is 24 months. The trainee will spend at least 15 months period in the Andrology department. He should spend 3 months in the IVF unit at the Gynecology department. The candidate can spend up to 6 months in other departments or other institutes to work on his thesis or achieve extra training, such as (Urology, Medical genetics, endocrinology, Microsurgery, plastic surgery). For Medical Doctorate candidates who choose endocrinology as an elective course are obliged to spend a rotation for 3 months in the endocrinology clinic.

Beside clinical activities, MD students will attend the andrology course, share in the academic activities and 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

Medical Doctorate Thesis

All MD 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 actively participate in the scientific activities of the departments such as:

- *MD discussion group*
- *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.

ANDROLOGY MASTER DEGREE PROGRAM MATRIX

Courses / items		A Cognitive										B Professional Skills						C General and Transferable							
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	1	2	3	4	5	6	7	
<i>ANDR 935 Ta</i>	Sexually Transmitted Diseases	x	x	x	x		x	x	x	x															
<i>ANDR 935 Tb</i>	Sexual Medicine and Surgery	x	x	x	x		x	x	x	x															
<i>ANDR 935 Tc</i>	Male reproductive Medicine/Surgery	x	x	x	x		x	x	x	x															
<i>ANDR 935 Td</i>	Assistance Reproduction	x	x	x	x		x	x	x	x															
<i>ANDR 935 Te</i>	Andrology Related Disorders	x	x	x	x		x	x	x	x															
<i>ANDR 910</i>	Genetics of Male reproduction					x					x						x		x						
<i>ANDR 902</i>	Molecular Biology of Male Reproduction					x					x						x		x						
<i>ANDR 908</i>	Male Reproductive Endocrinology					x					x						x		x						
<i>ANDR 922</i>	Clinical Pathology of Male Reproduction					x					x						x		x						
	Scientific Activities																						x	x	x
<i>ANDR 935 C</i>	Advanced Training Program						x	x	x	x	x	x	x	x	x	x	x	x		x	x	x			
	MD Thesis					x					x						x	x		x				x	x

VI. Regulations for Progression and Program Completion

After collecting the required credit points for the respective courses, the advanced residency training, the scientific activities, and the thesis the student will be eligible to sit for the final examination. In case the student fails to pass the examination, he/she may resubmit for the next examination. The candidate will receive his/her degree after passing this final examination. MD 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 to 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 to the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009). Students should be assessed at the end of the program.

- **Andrology:** Four written exams (Three-hours each) including short essay questions, and MCQ (including problem solving) + oral exam + clinical exam
- **Elective courses:** Three-hour written exam (One and half hour for each course including short essay and multiple choice questions) + oral exam

The candidate should pass the written examination before sitting for the oral and clinical examinations. If he/she fails to pass three consecutive oral and/or clinical exams, the result of the previous written examination will be invalid and the candidate should re-sit for a new written examination.

B: Assessment Schedule:

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

Day one: STIs

Day two: Male infertility

Day three: Sexual Medicine

Day four: Assisted Reproduction and Andrology related topics

Day five : Elective courses

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
Compulsory course					
ANDR 935 Ta	Sexually Transmitted Diseases	125	150	150	800
ANDR 935 Tb	Sexual Medicine and Surgery	125			
ANDR 935 Tc	Male reproductive Medicine/Surgery	125			
ANDR 935 Td ANDR 935 Te	Assistance Reproduction Andrology Related Disorders	125			
Elective courses (choose only 2 courses)					
ANDR 910	Genetics of Male reproduction	75 + 75	25 + 25		200
ANDR 902	Molecular Biology of Male Reproduction				
ANDR 908	Male Reproductive Endocrinology				
ANDR 922	Clinical Pathology of Male Reproduction				
Total					1000

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: Mar 2010 date of Last Modification: Sep 2013****Renewed approval: Nov 2016****Program coordinator:** Prof. Ibrahim Fahmy**Program Coordinators**

Prof Ibrahim Fahmy / Yasser El-Khayat

Head of Department

Prof Hussein Ghanem