PROGRAMME SPECIFICATION

MD Dermatology, STDs, and Andrology

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme Title & Code	Postgraduate degree of dermatology and Andrology Code derm 600
(2) Final award/degree	MD
(3) Department (s)	Dermatology , Andrology , and STDs
(4) Coordinator	Samir Elhanbly, MD
(5) External evaluator (s)	Mai H Elsamahy, MD Professor of Dermatology, STDs and Andrology, Faculty of Medicine Ain Shams University
(6) Date of approval by the Department`s council	3/4/2016
(7) Date of last approval by the faculty`s council	9/8/2016

(B) Professional information

(1) Programme Aims:

The broad aims of the Programme are as follows:

1- Provides the MD student with knowledge about basic science related to Dermatology & Andrology.

2- Provides the student with detailed and advanced knowledge about most of skin diseases probably seen by a skin MD specialist

3- Provides MD students with detailed dermatology clinical skills such as obtaining a patient's full history, full clinical examination of skin, hair and nails.

4- Makes the MD student be able to differentiate between similar skin diseases after making an appropriate differential diagnosis.

5- Makes the student the MD student should be able to perform certain diagnostic and therapeutic procedures for cases of skin diseases like skin biopsy, woods light examination, dermoscopy, immunofluorescence and Tzank smear.

6- Makes the MD student be able to plan a standard diagnostic algorism for skin diseases

7- Makes the MD student be able to propose treatment strategies for cases of skin diseases

8- Makes the MD student be able to perform certain treatment procedures for the skin like puch micrograft, split thickness graft, light therapy, derbabrassion, cry and electrocautery, excision of some skin lesions chemical peel, and laser therapy, Botox and filler injections.

9- Provides the MD student with an ethical attitude in general and towards patients, relatives, seniors, tutors and colleagues.

10- Makes the MD student be able to adopt a scientific way of thinking even in the presence of administrative or logistic limitations.

11- Makes the MD student be able to recognize the importance of scientific research and how to conduct a community service

12- Makes the MD student be able to develop a point for clinical trial and to lead a research team.

13- Provides MD students with advanced and detailed knowledge about most cases of erectile dysfunction (ED) and male infertility.

14- Provides MD students with detailed andrologic clinical skills such as obtaining a patient's full history, full clinical examination of male and female genital system.

15- Learns MD students to classify the different causes of ED and male infertility and make an appropriate differential diagnosis.

16- Learns MD students how to perform certain diagnostic tests like microscopic and computerized examination of semen and prostatic fluid, testicular biopsy, intracavernosal injection (ICI), Rigiscan monitoring of penile erections, and Doppler exam for varicocele, assessment of nerves and vessels.

17- Makes MD students Be able to do certain therapeutic procedures like: semen processing, correction of priapism, tactical sperm extraction (TESE) and percutaneous sperm aspiration (PESA)

18- Learns MD students how to Propose treatment strategies for most cases ED and male infertility

19- Provides MD students with the ethical attitude in general and towards patients, relatives, seniors, tutors and colleagues.

20- Learns MD students how to adopt a scientific way of thinking even in the presence of administrative or logistic limitations.

21- Learns MD students how to recognize the importance of scientific research and how to conduct a community service

22- Learns MD students how to develop a point for clinical trial and how to lead a research team.

23- Provides the student with advanced knowledge about **cosmetic Dermatology & skin surgery**.

24- Provides the student with advanced knowledge **in embryology & assisted reproductive techniques**.

(2) Intended Learning Outcomes (ILOs):

On successful completion of the programme, the candidate will be able to:

A-Knowledge and Understanding:

A 1- Recognize the following:

a) Porphyrin metabolism.
b) Oxidative stress & antioxidants.
c) Biochemistry of trace elements & vitamins.

A 2- Describe Structure and function of DNA, its replication, repair and recombination.

A 3- Identify Cytoskeleton & Cell junctions and their disorders in Dermatology

A 4- Discuss Molecular structure & its disorders in Dermatology of the following:

a) basement membrane zone
b) collagen
c) elastin
d) Ground substance.

A 5- Recognize the Molecular biology of following:

a) stem cells
b) skin tumors
c) skin infections

A 6- Explain Principles of biotechnology and transdermal delivery of drugs.

A 7- Discuss Biochemistry of sex hormones and pituitary hormones.

A 8- Recognize the following:

d) Basics of cells.
e) Cell membrane structure & dynamics.
f) Biology of skin ageing.
g) Genetics of Sexual Development and Differentiation.
h) Genetics of male infertility and sexual dysfunctions.

A 9- Describe the following & their disorders:

e) Cell movements
f) Cell cycle
g) Cell divisions.

A10- Discuss the biology of:

a) Keratinocyte
b) Hair follicle
c) Melanocyte

A 11- Identify the following:

a) Cell signaling & ion channels.
b) Skin barrier.
c) Cell biology of wound healing.
d) Apoptosis.

A 12- Explain the following:

a) Structure & function of genes and chromosomes.

b) Transcription & control of gene expression.
c) Genetics of skin diseases
d) Gene therapy
e) Genetic counseling

A 13- Recognize the Micro flora of skin and the male genital tract.

A 14- Discuss Bacterial, Viral, Fungal, Protozoal and Parasitic skin and sexually transmitted infections and their Immunology.

A 15- Identify the Innate immunity & adaptive immunity: Soluble factors, Cells of innate immunity, T & B lymphocytes.

A 16- Recognize the Immunological functions of the skin: Keratinocytes, Langerhans's cell, Epidermal T cells, Antimicrobial peptides, Toll-like receptors

A 17- Describe Cytokines & cell adhesion molecules in Dermatology

A 18- Explain the Allergy (hypersensitivity) and its immunotherapy, Immunodeficiency and Autoimmunity.

A 19- Discuss Immunology of skin tumors, Photo-immunology and Immunotherapy (Immunomodulatory drugs & Biologic therapy).

A20- Identify the Spermatozoa related Immunological aspects.

A 21- Recognize of the Characters of normal skin.

A 22- Define the Clinicopathological correlations in diagnosis of the following:

1. Genodermatoses.
2. Non-infectious erythematous squamous diseases.
3. Vasculitis.
4. Vesiculobullous diseases.
5. Connective Tissue diseases.

6. Photosensitive dermatoses.
7. Non-infectious granuloma.
8. Degenerative diseases.
9. Perforating dermatoses.
10. Histeocytic proliferative disorders.
11. Inflammatory diseases of hair follicles and sweat glands.
12. Bacterial, viral, fungal, protozoal infections of the skin.
13. Pigmented disorders of the skin.
14. Epidermal skin tumors (BCC, SCC, Melanoma).
15. Tumors of skin appendages.
16. Cutaneous lymphoma & leukemia.
17. Tumors of fibrous tissues.
18. Tumors of vascular tissues.
19. Testicular biopsy

A 23- Recognize the etiology, pathogenesis, clinical features, investigations, differential diagnosis, complications and treatment of skin diseases.

A 24- Identify pathogenesis, diagnosis, prevention and treatment of Sexually transmitted diseases.

A 25- Outline the relations between the systemic diseases & the skin and the ages of man & their dermatoses.

A 26- Explain the different diagnostic tests to be used in identification of most skin diseases including the prenatal diagnosis of skin diseases.

A27- Discuss the lines of treatment of skin diseases including topical and systemic therapy, phototherapy, and basics of dermatological surgery & Laser therapy.

A28- Recognize Physiology of Testicular Function, Sperm Maturation and Fertilization.

A29- Outline the Classification of Andrological Disorders

A30- Explain techniques, results and indications of different diagnostic methods:

1. Imaging Diagnostics
2. Endocrine Laboratory Diagnosis.
3. Cytogenetic and Molecular Genetic Investigations.
4. Semen Analysis.
5. Sperm Quality and Function Tests
6. Testicular Biopsy and Histology.

A31- Describe Normal and Abnormal pubertal development.

A32- Explain the etiology, pathogenesis, diagnosis, differential diagnosis and management of Diseases of the Hypothalamus and the Pituitary Gland.

A33- Discuss etiology, pathogenesis, diagnosis, differential diagnosis and management of Disorders affecting male fertility at the Testicular Level.

A 34- Explain etiology, pathogenesis, diagnosis, differential diagnosis and management of Disorders affecting male fertility at the level of Androgen Target Organs.

A35- Outline etiology, pathogenesis, diagnosis, differential diagnosis and management of the Diseases of the Seminal Ducts.

A 36- Describe Testicular Dysfunction in Systemic Diseases and Iatrogenic factors and effect of STDs on male infertility.

A37–Describe different types of treatment of male infertility

A38- Identify Male contribution to contraception.

A39- Recognize etiology, pathogenesis, diagnosis, differential diagnosis and management of Andrological emergencies.

A40- Explain the Psychology and physiology of sexual desire, arousal and response regarding the following subjects:

a. Central nervous mechanisms
b. Role of hormones
c. Genital responses
d. Orgasm, emission and ejaculation

A41- Describe Ageing and Sexuality regarding:

a. The effect of physiological, psychological and social factors throughout life
b. Changes in sexuality throughout life

A42- Recognize Sexual Dysfunctions in men and women regarding:

a. Definitions and classification
b. Epidemiology, pathophysiology and risk factors
c. Differentiation between sexual dysfunction and short term, or transient, alterations of sexual function.
d. Diagnosis and treatment of sexual dysfunctions.

A43- Identify the etiology, pathogenesis, diagnosis, differential diagnosis and management of deviant sexual behaviour.

A44- Outline different Gender Identity Disorders.

A 45- Recognize the clinical management of sexual disorders regarding:

1. Principles

i. Evidence based medicine
ii. Combination of psychosomatic and somato-medical approach
iii. Interdisciplinarity
iv. Patient and couple centered

2. Methods

i. Establishing a sexual medicine clinic

ii. Counselling, Sex therapy, Psychotherapy

iii. Pharmacological

iv. Physical and surgical

A 46-Discuss the History, socioeconomic impact, and epidemiology of sexually transmitted infections

A 47- Recognize the Social and psychological dimensions of sexuality and Profiles of vulnerable populations to STDs

A 48-Identify Host immunity and molecular pathogenesis and STDs.

A 49- Describe the Overview of STDs care management includig the following:

1. STDs care management .
2. Individual-level risk assessment for sexually transmitted infections, including HIV
3. Anatomy and physical examination of the genital tract
4. Principles of treatment of sexually transmitted diseases .
5. principles of laboratory diagnosis of STDs
6. Individual, couple, and small-group interventions.
7. Management of STIs syndromes in women
    a. lower genital tract infection syndromes in women
    b. Pelvic inflammatory disease
8. Management of STIs syndromes in men
    a. -Urethritis in males .
    b. -Epididymitis .
    c. -Prostatitis syndromes .

A 50 – Outline STDs in reproductive health and pediatrics as follow:

1. -Sexually Transmitted Diseases and male Infertility .
2. -Sexually Transmitted Infections and Pregnancy outcome

3. -Child Sexual Abuse and STDs

A 51- Recognize special medical, legal, and social issues:

1. Sexual Assault and STDs .
2. Legal and Political Aspects of STIs Prevention:
3. -Ethical Challenges of the Global AIDS Epidemic
4. -Information and Communication Technologies for Prevention and Control of STDs .

A52 -Discuss the stages of

1. Sperm formation
2. DNA synthesis
3. Nuclear proteins synthesis.

A53- Recognize the following:

1. Evolutionary biology of spermatozoa
2. Correlation between Spermatozoa and human fertility

A54- Explain Signaling and sperm functions

A55 -Identify Sperm-egg interaction and Epigenetics of fertilization

A56- Outline Sperm motility and Manipulation of sperm cells

A57- Describe anatomy and physiology of accessory sex glands and role of secreted fluids in sperm function

A58-Discuss the Introduction and History of sexual psychology

A59- Recognize the Theoretical Perspectives of sexual psychology.

A60- Explain different Theories of Sexuality

A61-Identify Homosexuality, Bisexuality, Transgender

A62 - Describe the Evolutionary Psychology and Feminism

A63- Outline the Advances in

1. Sex Therapy
2. Behavioral therapy

3. Couple therapy.
4. Re-orientation therapy

A64-Recognize different stages and recent advances in explanation of Development of urogenital system

A65- Explain the different aspects of:

a) Molecular embryology of Development of urogenital system
b) Preimplantation genetic diagnosis and its applications.

A66 - Discuss the following:

1. Genetic factors and hormones that determine gender
2. Recent advances in sex determination and embryo selection in ICSI

A 67- Identify the following:

- epidermis
- Dermis
- Fat and the Subcutaneous Layer.

A68- Explain Immunology and Nutrition and of the skin

A69- Recognize Aging skin regarding Hormones, Photoaging and Cigarettes

A 70- Describe the following:

- Baumann skin typing system
- Oily skin
- Dry skin
- Sensitive skin.
- Skin of color
- Chemical peels
- Botulinum Toxin

- Lasers and light Devices.
- Platelet rich plasma.

A 71- Discuss the following:

- Sunscreens,
- Retinoids
- Moisturizing
- Antioxidants.

Burn.

A72 - Outline conventional IVF and related techniques (GIFT, ZIFT, embryo transfer).

A73- Explain different types of sperm preparation (for IUI, IVF, ICSI)

A74- Discuss ART for male infertility (indications, assessment, and genetic counseling)

A75 - Recognize different methods of sperm collection [surgical and nonsurgical].

A76- Discuss the cryopreservation (sperms, tissue, embryo)

A77- Recognize the outcome and complications of ART

A78- Explain the legal aspects of ART

A79–Identify the artificial insemination

A80- Describe the gamete micromanipulations (zona drilling, post-zona drilling, sub zona sperm injection, ICSI, assisted hatching)

B–Intellectual skills :

B1- Illustrate the following:

a) steps of Porphyrin metabolism

b) Cell junctions and their disorders in Dermatology

B2- Compare between types of antioxidants

B-3- Compare between types of:

1. Cell movements
2. Cell junctions.

B-4- Plan standard diagnostic algorisms for micobiological diagnosis of Bacterial, Viral, Fungal, Protozoal and Parasitic skin and sexually transmitted infections.

B 5- Compare between Innate immunity & adaptive immunity

B-6- Plan a standard diagnostic algorism for histopathological diagnosis of different skin diseases

B-7- Assimilate evidence from scientific research and bring it into his clinical practice

B 8- Manage administrative versus scientific conflicts in an appropriate way.

B 9- Compare between what is common and what is remote or extreme.

B 10-Interpret clinical data on approaching cases of skin diseases.

B 11- Summarize the appropriate tests to diagnose a case of skin diseases

B 12- Integrate formative evaluation into daily practice

B 13- Analyze data obtained from history, clinical examination and laboratory reports to approach cases of skin diseases.

B 14- Prioritize the different patient's problem and Set up an appropriate algorism.

B 15- Propose good and interesting points for clinical studies in the field.

B 16- Plan a safe treatment strategy after discussion with the patient or a relative.

B 17-Interpret clinical data on approaching different andrology cases.

B18- Summarize the appropriate tests to diagnose a case with andrologic problem.

B 19- Analyze data obtained from history, clinical examination and laboratory reports to approach andrology cases management.

B 20- Prioritize the different patient's problem and Set up an appropriate algorism for these problems management.

B 21- Plan a safe treatment strategy after discussion with the patient or a relative.

B22- Differentiate between diseases categorized together e.g. uretheral discharges, genital ulcers.

B-23- Differentiate between types of skin.

B 24- Compare between different procedures of treatment of certain skin problems e.g aging & pigmentation.

B25- Compare between different types of IVF

B26- Differentiate between different types of gamete micromanipulations.

B27-Plan a standard diagnostic algorism for steps of usage of ART

C-Professional/practical skills :

C 1- Construct and record a detailed and structured dermatology history sheet.

C 2-Utilize most of the information obtained from history, clinical examination, and laboratory investigations.

C 3- Conduct a standard skin, hair, and nail examination.

C 4- Practice some therapeutic modalities for skin problems, like intralesional injections electro, cryotherapy, UV therapy, dermabrasion and LASER treatments, chemical peeling, fillers and Botox injections

C 5- Advocate for quality and optimal patient care.

C6- Apply data from literature into the specialty.

C7- Make clinical decisions based on evidence & obtained findings.

C8- Select appropriate investigations.

C9- Interpret results obtained from history, clinical examination & diagnostic testing.

C10- Plan a safe management after discussion with the patient himself or a relative.

C11- Fully document the patient's history & examination findings and present information clearly in different, written, oral or electronic forms.

C12- Take care sexually transmitted infections using universal precautions.

C13-Record a detailed and structured andrology history

C14- Perform a standard male genital examination.

C 15- Perform certain diagnostic tests important in the field of Andrology like microscopic examination of semen (conventional and computer assisted semen analysis (CASA) and prostatic fluid, testicular biopsy, intracavernosal injection (ICI), monitoring of nocturnal penile erections (using the Rigiscan) and look for varicocele using the Doppler US.

C 16- Practice certain therapeutic procedures like: semen processing, correction of priapism, testicular sperm extraction (TESE) and percutaneous sperm aspiration (PESA)

D–Communication & Transferable skills:

D 1- Work effectively within the team of colleagues and tutors.

D 2- Manages time, services and resources effectively.

D 3- Sets priorities, skills and needs for lifelong learning.

D 4- Deal professionally with scientific organizations, journals, and associations.

D 5- Explain to the patients and/or relatives the nature of the disease.

D 6- Presents information clearly in different, written, oral or electronic forms.

D 7- Interact effectively with dermatology patients, their families and the public respecting their socioeconomic and cultural backgrounds.

D 8- Value the patient's concerns and worries.

D 9- Respect patients' privacy and autonomy.

D 10- Interact effectively with team work, other physicians & other health care providers.

(3) Academic standards:

Academic standards for the programme are attached in Appendix I. in which **NARS** issued by the National Authority for Quality Assurance & Accreditation in Education are used. External reference points/Benchmarks are attached in Appendix II.

3.a- External reference points/benchmarks are selected to confirm the appropriateness of the objectives, ILOs and structure of assessment of the programme:

Boston university medical college

(www.bnmc.bu.edu/derm/training/programs/overview)

3.b- Comparison of the specification to the selected external reference/ benchmark:

1-They teach only dermatology and not andrology to their postgraduate students

2- Melanoma skin cancers are studied extensively

3- Education resources includes web based curriculum

4- Assessment tools include daily faculty observation of clinical activities, participation in student conferences

(4) Curriculum structure and contents:

4.a– Duration of the programme (in years or months): 42 months

4.b– programme structure:

Candidates should fulfill a total of 60 credit hours

- 4.b.1: Number of credit hours:
  - –First part: 5
  - –Second part: 25
  - –Thesis: 15
  - –Log Book: 15
- 4.b.2: Teaching hours/week:
  - Lectures: 11
  - Clinical/lab: 6
  - Total: 17

(5) Programme courses:

First part

Compulsory courses:

Course Title (CODE)	NO. of hours per week					Total teaching hours	Programme ILOs covered (REFERRING TO MATRIX)
	Theoretical		Laboratory /practical	Field	Total		
	Lectures	seminars					
Biochemistry& molecular Biology (DERM 615 BM, DERM 604)	1				1	15	A1,2,8, 9, 10 and B2,3- and C2, D6,8
Microbiology & immune-dermatology (DERM 615 MI, DERM 607)	1				1	15	A1,2,3,4,8, 10 and B2 and C1,4, D8
Cell biology & Genetics (DER 615 CB, DERM 602)	1				1	15	A1, 2, 8, 10 and B2,5 ,10 and D8

Dermatopathology (DERM 615 DP)	1		1		2	30	A1,2,8, 9, 10 and B8, 10 and C1,2, 10 and D1, 8, 9

Second part

Course Title (CODE)	NO. of hours per week					Total teaching hours	Programme ILOs covered (REFERRING TO MATRIX)
	Theoretical		Laboratory /practical	Field	Total		
	Lectures	seminars					
Dermatology and therapy (DERM 615 DMT)	4		2		6	252	A1,2,3,4,7 and B1,3,4,5,6,7, 10,11 and C1,2,3,6,7,8 and D1-9
STDs and therapy (DERM 615 STT)	1				1	42	A2,3,4,10,13,14 and B1-11 and C1,2,3,6,7,8 and D1-9
Andrology and therapy (DERM 615 ADT)	2.5		1.5		4	168	A5,6,8,9,10,11,12 and B1-11 and C1,2,3,4,6,7,8 and D1-9
Thesis	3		5		8	336	A1-8,9, 10 and B1-8, 9, 10,11 and C1-8, and D1-9

Programme–Courses ILOs Matrix

P.S. All courses` specifications are attached in Appendix III.

Course Title/Code	Programme ILOs																							
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
Biochemistry and molecular biology	x	x						x	x	x						x	x								
Microbiology and Immune dermatology	x	x	x	x				x		x						x									
Cell biology and genetics	x	x						x		x						x			x					x	
Pathology	x	x						x	x	x												x		x	
Dermatology and therapy	X	x	x	x			x								x		x	X	x	X	x			x	x
STDs and therapy		x	x	x						x			x	x	x	x	x	x	x	x	x	x	x	x	x
Andrology and therapy					X	x		x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x

Course Title/Code	Programme ILOs																
	C1	C2	C3	C4	C5	C6	C7	C8	D1	D2	D3	D4	D5	D6	D7	D8	D9
Biochemistry and molecular biology		x												x		x	
Microbiology and Immune dermatology	x			x												x	
Cell biology and genetics													x			x	
Pathology	x	x						x	x							x	x
Dermatology and therapy	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x
STDs and therapy	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x
Andrology and therapy	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x

(6) Programme admission requirements:

- General requirements:

According to the faculty rules and by laws

- Specific requirements (if applicable):

Was working as a resident in the Dept.

(7) Regulations for progression and programme completion:

First part

Assessment Rules

1- Attendance Criteria:
Minimum acceptance attendance in each course is 75%

2- Log book should be fulfilled and signed by Heads of the departments teaching the course

3- Assessment tools:

	Tools	Mark	Percentage of the total mar
	Written exam	400	100%
	Oral exam		
	Practical exam		
	Total marks	400	

Second part

Assessment Rules

1- Attendance Criteria:
Minimum acceptance attendance in each course is 75%

2- Log book should be fulfilled and signed by Head of the Dermatology & Andrology department.

3- Assessment tool:

Tools	Mark	Percentage of the total mark
Written exam	500	55
Oral OSCE exam	200	22.5
Clinical OSCE exam	200	22.5
Total marks	900	

(8) Evaluation of Programme's intended learning outcomes (ILOs):

Evaluator	Tools*	Sample size
Internal evaluator **(s)**: Ibrahim Abdel Hamid, MD Fawzia Saafan, MD Moheb Mansour, MD	Personal communicatio Interviews Emails	
External Evaluator **(s)** **Mai H Elsamahy, MD** **Professor of Dermatology, STDs and And** **Faculty of Medicine Ain Shams Universi**	Workshops Interviews Personal communicatio	
Senior student **(s)**		
Alumni		
Stakeholder **(s)**		
others		

* TOOLS= QUESTIONNAIRE, INTERVIEW, WORKSHOP, COMMUNICATION, E_MAIL

We certify that all information required to deliver this programme is contained in the above specification and will be implemented. All course specifications for this programme are in place.	
Programme coordinator: Samir Elhanbly, MD	Signature & date:
Dean:	Signature & date:
Executive director of the quality assurance unit: Name:	Signature & date:

P.S. The programme specification should have attached to it all courses specifications for all courses listed in the matrix.