Andrology &STDs COURSE SPECIFICATION

MSc Dermatology, Andrology &STDs

Faculty of Medicine- Mansoura University (A)

Administrative information

(1) Programme offering the course:	MSc Dermatology, Andrology & STDs
(2) Department offering the programme:	Dermatology, Andrology &S T D s
(3) Department responsible for teaching the course:	Dermatology, Andrology & S T D s
(4) Part of the prog ram m e:	Second semester
(5) Date of approval by the Department`s council	9/4/2023
(6) D ate of last approval of programme specification by F aculty council	18/4/2023
(7) C ourse title:	**Andrology** part I
(8) C ourse code:	D E R M 515 AN I
(9) N umber of credit hours	3
(10) T otal teaching hours:	45

B) Professional information

(1) Course Aims: (B) Professional information

(1) Course Aims:

T he broad aims of the course are as follows:

1- T he M S c student will acquire detailed knowledg e about most cases of erectile dysfunction (E D), male infertility and S T D s.

2- Provides M S c students with detailed Androlog y clinical skills such as obtaining a patient's full history and full clinical examination of male urethra and g enital system. 3- T rains the candidate how to classify the different causes of E D male infertility and S T D s and make an appropriate differential diag nosis.

4- T rains the candidate how to Perform certain diag nostic tests like microscopic examination of semen and prostatic fluid, taking expressed prostatic secretions, urethral swabs, two g lasses testing , looking for pus cells in urine and semen, testicular biopsy, intracavernosal injection (IC I), R ig iscan monitoring of penile erections, and D oppler exam for varicocele

5- T rains the candidate how to do certain therapeutic procedures like: correction of priapism, testicular sperm extraction (TESE) and percutaneous sperm aspiration

(PE S A)

6- Trains the candidate how to plan a standard diagnostic algorism for cases of urethral discharge

7- T rains the candidate how to propose treatment strateg ies for most cases E D male infertility and S T D s.

8- T rains the candidate to acquire an ethical attitude in g eneral and towards patients, relatives, seniors, tutors and colleag ues.

9- T rains the candidate how to consider the importance of scientific research and community service

(2) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding

A1- R ecog nize Physiolog y of T esticular F unction, S perm M aturation and F ertilization.

A2- Outline the C lassification of Androlog ical D isorders A3- E xplain techniques, results and indications of different diag nostic methods:

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

A4- D escribe N ormal and Abnormal pubertal development. A5- E xplain the etiolog y, pathog enesis, diag nosis, differential diag nosis and manag ement of D iseases of the H ypothalamus and the Pituitary G land.

A6- D iscuss etiolog y, pathog enesis, diag nosis, differential diagnosis and management of Disorders affecting male fertility at the T esticular L evel.

A 7- E xplain etiolog y, pathog enesis, diag nosis, differential diagnosis and management of Disorders affecting male fertility at the level of Androg en T arg et Org ans. A8- Outline etiolog y, pathog enesis, diag nosis, differential diag nosis and manag ement of the D iseases of the S eminal D ucts.

A 9- D escribe T esticular D ysfunction in S ystemic D iseases and Iatrog enic factors and effect of S T D s on male infertility.

A10–D escribe different types of treatment of male infertility A11- Identify M ale contribution to contraception. A12- R ecog nize etiolog y, pathog enesis, diag nosis, differential diagnosis and management of Andrological emerg encies.

B - Intellectual skills

B 1-Interpret clinical data on approaching different andrology cases.

B 2- S ummarize the appropriate tests to diag nose a case with androlog ic problem.

B 3- Analyze data obtained from history, clinical examination and laboratory reports to approach andrology cases management.

B 4- Prioritize the different patient's problem and S et up an appropriate algorism for these problems management. B 5- Plan a safe treatment strateg y after discussion with the patient or a relative**.**

B 6- D ifferentiate between diseases categ orized tog ether e.g . uretheral discharg es, g enital ulcers.

C - Professional/practical skills:

C1- Make clinical decisions based on evidence & obtained finding s.

C 2- S elect appropriate investig ations.

C3- Interpret results obtained from history, clinical examination & diag nostic testing .

C4- Plan a safe management after discussion with the patient himself or a relative.

C5- Fully document the patient's history & examination findings and present information clearly in different, written, oral or electronic forms.

C6- Take care sexually transmitted infections using universal precautions.

C 7-R ecord a detailed and structured androlog y & S T D s history

C 8- Perform a standard male g enital examination. C 9- Perform certain diag nostic tests important in the field of Androlog y like microscopic examination of semen (conventional and computer assisted semen analysis (CASA) and prostatic fluid, testicular biopsy, intracavernosal injection (IC I), monitoring of nocturnal penile erections (using the R ig iscan) and look for varicocele using the D oppler U S and some diag nostic tests for S T D s like urethral swabs, prostate examination and expressed prostatic fluid microscopic exam and two g lasses test..

C 10- Practice certain therapeutic procedures like: semen processing , correction of priapism, testicular sperm extraction (TESE) and percutaneous sperm aspiration (PE S A)

D **- C om m unication &T ransferable skills**

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

D 2- M anag es time, services and resources effectively.

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

D 4- D eal professionally with scientific org anizations, journals, and associations.

D 5- E xplain 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 dermatolog y patients, their families and the public respecting their socioeconomic and cultural backg rounds.

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

D 9- R espect patients' privacy and autonomy.

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

T he broad aims of the course are as follows:

1- Provides the M S c student with detailed knowledg e about most of skin diseases probably seen by a skin specialist. 2- Provides M S c students with detailed dermatolog y clinical skills

3- T rains the M S candidate how to differentiate between similar skin diseases after making an appropriate differential diag nosis.

4- T rains the M S candidate how to perform certain diag nostic and therapeutic procedures for cases of skin diseases like skin biopsy, woods lig ht examination, dermoscopy cases.

5- T rains the M S candidate how to plan a standard diagnostic algorism for skin diseases

6- T rains the M S candidate how to propose treatment strateg ies for most cases of skin diseases

7- T rains the M S candidate how to acquire an ethical attitude in g eneral and towards patients, relatives, seniors, tutors and colleag ues.

8- T rains the M S candidate how to Perform certain treatment procedures for the skin like lig ht therapy, dermabrasion, cry and electro cautery, excision of some skin lesions chemical peel, and laser therapy.

9- T rains the M S candidate how to carry out scientific research and community service

(2) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding

A1- R ecog nize the etiolog y, pathog enesis, clinical features, investig ations, differential diag nosis, complications and treatment of different skin diseases.

A2- Outline the relations between the systemic diseases & the skin

A 3- E xplain the different diag nostic tests to be used in identification of most skin diseases.

A4- D iscuss the lines of treatment of skin diseases including topical and systemic therapy, phototherapy, and basics of dermatolog ical surg ery & L aser therapy.

B **- Intellectual skills**

M S c D eg ree provides opportunities for candidates to achieve and demonstrate the following intellectual qualities:

B-1- Assimilate scientific data and bring it into his clinical dermatolog y practice

B 2-Interpret clinical data on approaching cases.

B 3- S ummarize the appropriate tests to diag nose a dermatology case

B 4- Analyze data obtained from history, clinical examination and laboratory reports to approach cases.

B 5- Prioritize the different patient's problems and S et up an appropriate algorism for proper problems management.

B 6- Propose g ood and interesting points for clinical studies in the field.

B 7- Plan a safe treatment strateg y after discussion with the patient or a relative.

B 8- C ompare between different skin diseases categ orized tog ether e.g . immunobullous diseases according to levels of cleavag e.

C **- Professional/practical skills:**

C1- C onstruct and record a detailed and structured dermatolog y history sheet.

C 2-U tilize most of the information obtained from history, clinical examination, and laboratory investig ations.

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

C 4- Practice some therapeutic modalities for skin problems, like intralesional injections electro, cryotherapy, U V therapy, dermabrasion and L AS E R treatments, chemical peeling , fillers and B otox injections

C 5- Advocate for quality and optimal patient care.

C 6- Apply data from literature into the specialty.

D **-C om m unication & T ransferable skills:**

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

D 2- Manag es time, services and resources effectively.

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

D 4- Deal professionally with scientific org anizations, 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 dermatolog y patients, their families and the public respecting their socioeconomic and cultural backgrounds.

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

D 9- R espect patients' privacy and autonomy.

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

(3) C ourse content

3 credit hours

Dermatology module No. 1

Andrology module No. 1

(Male infertility)

S ubjects	Teaching hours
1. Physiology of Testicular Function, Sperm Maturation and F ertilization	**2**

2. Classification of Andrological Disorders 1

3. Techniques, results and indications of different diagnostic methods:

a) Imaging Diagnostics **4**

b) Endocrine Laboratory Diagnosis.

c) Cytogenetic and Molecular Genetic Investigations.

d) Semen Analysis.

e) Sperm Quality and Function Tests.

f) Testicular Biopsy and Histology: role and indications.

4. Normal and Abnormal pubertal development 1

5. Etiology , pathogenesis, diagnosis, differential 3 diagnosis and management of Diseases of the Hypothalamus and the Pituitary Gland:

a) Kallmann syndrome	
b) Idiopathic hypogonadotropic hypogonadism	
c) Prader-Labhart-Willi syndrome	
d) Constitutionally delayed puberty	
e) Secondary disturbance of GnRH, Hypopituitarism, Pasqualini syndrome, H yperprolactinemia.	
6. Etiology , pathogenesis, diagnosis, differential diagnosis and management of Disorders affecting [16] **male fertility at the Testicular Level** a) -Congenital and Acquired anorchia	
b) -Maldescended (Undescended) testes	
c) -Varicocele and relation to male fertility	
d) -Orchitis	
e) Sertoli-cell-only syndrome	
f) Spermatogenic arrest	
g) -Globozoospermia	
h) -Immotile cilia syndrome	
i) -Disorders of sexual Development	
j) -Genetic disturbance in gonadal Differentiation:	
k) -Klinefelter syndrome	
l) -Gonadal dysgenesis	
m) -Persistent oviduct	
n) -Leydig cell hypoplasia	
o) Disorders of steroid synthesis	
p) -Male pseudohermaphroditism	
q) -XYY syndrome	
r) -Noonan syndrome	
s) -Structural chromosomal anomalies	
t) -Testicular tumors related to infertility	
u) -Disorders caused by exogenous factors or systemic disease	

v) - Idiopathic infertility	4
9 - Etiology , pathogenesis, diagnosis, differential diagnosis and management of Diseases of the Seminal D ucts:	
a. -Inflammation of the seminal tract and genital glands	
b. -Obstructions of seminal tract	
c. -Cystic fibrosis (CBAVD (congenital bilateral aplasia of the vas deferens)	
d. Disturbance of semen liquefaction	
e. Immunologic infertility	
10. Etiology , pathogenesis, diagnosis, differential diagnosis and management of Disorders of Androgen Target Organs	**5**
a. -C omplete Androg en Insensitivity syndrome	
b. -R eifenstein syndrome	
c. -Prepenile scrotum bifid and hypospadias	
d. -Bulbospinal-muscular atrophy	
e. -Perineoscrotal hypospadias with pseudovag ina	
f. -E strog en resistance	
g . -E strog en deficiency	
h. -G ynecomastia.	
i. - Accessory sex org ans developmental disorders.	
11. Effects of STDs on male fertility.	**1**
12. Testicular Dysfunction in Systemic Diseases and Iatrog enic factors	**1**
13. Different types of treatment of male infertility:	4
a. Empirical Therapies for Idiopathic Male Infertility	
b. Assisted Reproduction and preimplantation genetic diag nosis	
c. Cryopreservation of Human Spermatozoa and testicular tissue.	
d. Gene therapy and regenerative medicine in Andrology	
14. Male contribution to contraception	**1**

15. Etiology, pathogenesis, diagnosis, differential diagnosis and management of Andrological emergencies:	**2**
a. Testicular torsion	
b. Testicular trauma	
c. Penile trauma.	
T otal	**45**

(5) Teaching methods:

5.1: L ectures

5.2: Workshops

5.3: G rand meeting s

5.4: C ase presentations

5.5: specialty conferences

5.6: H and on training

(6)Assessment methods:

6.1 MCQ & EMQ exam for assessment of intellectual and knowledge ILOs

6.2 MEQs : Short essay questions for assessment of ILOs number A1,A2.

6.3: Log book for activities for assessment of: mainly for assessment practical & transferrable skills, attendance of different conferences, thesis discussions, seminars, workshops, Attendance of scientific lectures.

6.4: seminars: the candidate should prepare and present at least one seminar in a topic related to the course and determined by the supervisors in front of the department staff .

Assessment Schedule (100 marks)

Assessment 1: MCQ & short questions examination by the end of 1 st semester for assessment of knowledge and intellectual skills (80%)

Assessment 2: Logbook required activities to go through end semester examination.

Assessment 3: the candidate should prepare and present at least one seminar in a topic related to the course and determined by the supervisors in front of the department staff (20%).

References of the course:

7.1: H and books: Andrology Department staff handouts

7.2: Text books: Andrology (3 rd Edition, Springer, 2010),

Advances in sexual medicine (Research Signpost, 2009),textbook of STDs ad AIDS by CN Sowmini, WHO handbook of STDs

7.3: Journals: International Journal of Impotence

Research, Journal of sexual Medicine, Journal of

Andrology, Andrology, International journal of Andrology, Andrology Archives, F ertility& sterility Journal.AID S patient care and STDs, Journal --- International journal of

S T D & AID S

7.4: Websites:www.IJIR ..org, www.telem edicine.org , www.asrm .org, www.aua.org, www.andrologysociety.com , www.andrology.com , www.asiaandro.com

(7) Facilities and resources mandatory for course completion:

1- D aily Andrology Outpatient clinic

2- Fully Equipped Lecture halls

3-D epartm ent library

4-F aculty library

5-An equipped Clinical Andrology unit

6- Andrology laboratory

C ourse C ourse coordinator:

S amir E lhanbly, M D

H ead of the department:

Prof. Ashraf Hassan, MD