

PROGRAM SPECIFICATION OF MEDICAL DOCTORATE DEGREE IN DERMATOLOGY, VENEROLOGY AND ANDROLOGY

A. Basic Information

1. **Program Title:** Medical Doctorate degree in Dermatology, Venereology & Andrology
2. **Program Type:** Single
3. **Faculty:** Faculty of Medicine, Aswan University
4. **Department:** Dermatology, Venereology & Andrology.
5. **Coordinator:** Prof. Moustafa A. El Taieb, MD.
6. **Assistant coordinators:** Dr. Aly Younis, MD.
7. **External Evaluator:** Prof. Essam Eldin Nada, MD, Sohag University.

B. Professional Information

1. Program Aims:

The aim of this program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of dermatology, Venereology & Andrology and necessary for further training and practice in the field of dermatology, Venereology & Andrology through providing:

1. Recent scientific knowledge essential for the mastery of practice of Dermatology, Venereology and Andrology according to the international standards.
2. Skills necessary for proper diagnosis and management of patients in the field of Dermatology, Venereology and Andrology including diagnostic, problem solving and decision makes skills.
3. Ethical principles related to the practice in this highly sensitive specialty.
4. Active participation in community needs assessment and problems identification.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Upgrading research interest and abilities.

2. Attributes of the doctorate degree graduates:

1. Efficiency in carrying out the basics and advances in methodologies of scientific research in Dermatology, Venereology and Andrology.
2. The continuous working to add new knowledge in his field.
3. Applying the analytical course and critical appraisal of the knowledge in his specialty and related fields.
4. Merging the specialized knowledge with the other related knowledge with conclusion and developing the relationships in between them.
5. Showing a deep awareness with the ongoing problems, theories, and advanced sciences in his specialty.
6. Determination of the professional problems and creating solutions for them.
7. Efficiency in carrying out the professional skills in his specialty.
8. Using advanced suitable technologies which serves his practice.
9. Efficient communication and leadership of team work in his specialty.
10. Decision making through the available information.
11. Using the available resources efficiently and working to find new resources.
12. Awareness with his role in the development of the society and preserve environment.
13. Behaving in a way which reflects his credibility, accountability, and responsibility.
14. Keeping continuous self-development and transfer his experiences and knowledge to others.

3. Intended Learning Outcomes (ILOs)

a) Knowledge and Understanding:

By the end of the study of doctoral program in Dermatology, Venereology and Andrology the Graduate should be able to:

- a1. Mention the recent advances in the normal structure and function of the human integumentary and reproductive systems on the macro and micro levels.
- a2. Mention the normal growth and development of the human integumentary and reproductive systems.

- a3. Mention the abnormal structure, function, growth and development of human integumentary and reproductive systems and natural history of various dermatological, venereal and andrological diseases.
- a4. List recent advances in the natural history of Dermatological, Venereal and Andrological problems.
- a5. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of dermatological, venereal and andrological illnesses.
- a6. Mention the causation of disease and disease pathogenesis.
- a7. Enumerate methods of promoting health and preventing illness.
- a8. Describe the scientific methods of establishing disease causation.
- a9. Mention the various diagnostic and laboratory techniques necessary to establish diagnosis of various dermatological, venereal and andrological illnesses.
- a10. List the various therapeutic methods /alternatives used for various dermatological, venereal and andrological illnesses.
- a11. Mention principles, methodologies, tools and ethics of scientific research.
- a12. Mention the recent advance in data collection presentation and analysis in the field of Dermatology, Venereology and Andrology
- a13. List the recent advances in biostatistics and computer.
- a14. Mention the principles of evidence based medicine.
- a15. Mention the screening of diseases and sensitivity, specificity, and predictive values of screening tests
- a16. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of Dermatology, Venereology and Andrology.
- a17. List the principles and fundamentals of quality assurance of professional practice in the field of Dermatology, Venereology and Andrology.
- a18. Mention the effect of professional practice on the environment and the methods of environmental development and maintenance.

b) Intellectual Skills:

By the end of the study of doctoral program in Dermatology, Venereology and Andrology the Graduate should be able to:

- b1. Integrate data acquired through history taking to reach a provisional diagnosis for various Dermatological, Venereal and Andrological problems.
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Dermatological, Venereal and Andrological problems.
- b3. Conduct research studies that add to knowledge.
- b4. Formulate scientific papers in the area of Dermatology, Venereology and Andrology.
- b5. Assess risk in professional practices in the field of Dermatology, Venereology and Andrology.
- b6. Plan to improve performance in the field of Dermatology, Venereology and Andrology.
- b7. Identify Dermatological, Venereal and Andrological problems and find solutions.
- b8. Have the ability to innovate nontraditional solutions to Dermatological, Venereal and Andrological problems.
- b9. Manage Scientific discussion based on scientific evidences and proofs.
- b10. Criticize researches related to Dermatology, Venereology and Andrology
- b11. Interpret data acquired through researches using different statistical tests
- b12. Identify and collect data variables impacting health and disease in the field of Dermatology, Venereology and Andrology.

c) Professional and Practical Skills:

By the end of the study of doctoral program in Dermatology, Venereology and Andrology, the Graduate should be capable of:

- c1. Perform physical examination of patients for dermatological and reproductive systems.
- c2. Write and evaluate of medical reports.

- c3. Evaluate and develop methods and tools existing in the area of Dermatology, Venereology and Andrology.
- c4. Perform advanced diagnostic and therapeutic procedures in this practice with perfection of basic procedures such as (skin biopsy, intracorporeal injections, semen analysis, intradermal injections using dermojet, electrocautery, phototherapy, laser etc.....) to serve the Dermatological, Venereal and Andrological problems.
- c5. Train junior staff through continuous medical education programs.
- c6. Design new methods, tools and ways of professional practice.
- c7. Master the basic and modern professional skills in conducting researches in the field of Dermatology, Venereology and Andrology.
- c8. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in the field of Dermatology, Venereology and Andrology.

d) General and Transferable Skills:

By the end of the study of doctoral program in Dermatology, Venereology and Andrology, the Graduate should be capable of:

- d1. Present reports in seminars effectively.
- d2. Use standard computer programs effectively
- d3. Teach others and evaluate their performance.
- d4. Assess himself and identify his personal learning needs.
- d5. Use different sources for information and knowledge.
- d6. Work coherently and successfully as a part of a team and team's leadership.
- d7. Manage scientific meetings according to the available time.

4. Academic Standards:

Aswan Faculty of Medicine adopted the general National Academic Reference standards (NARS) provided by the national authority for quality assurance and accreditation of education (naqaae) for postgraduate programs. This was approved by the Faculty Council Decree No.(...) , in its session No. (...) Dated:..... Based

on these NARS; Academic Reference Standards (ARS) were suggested for this program. These ARS were revised by external evaluator and approved by the Faculty Council Decree No.(....), in its session No. (...), dated: The adoption of NARS and the suggested ARS were approved by University council degree No (...), in its session No.(..). dated

5. Curriculum Structure and Contents:

- 5.a- Program duration: 7 semesters (3.5 years)
- 5.b- Program structure:
- 5.b.i- No. of hours per week:

Subject	<u>hours /week</u>		
	Lectures	Practical	Clinical
First Part:			
Minors			
Research Methodology	2	2	
Biostatistics & computer	2	2	
Primary medical reports	1	2	
Basic sciences			
Pathology	3		
Mycology	3		
Second Part:			
Dermatology	4		7
Venereology & Andrology	3.25		5

code	Item	No	%
b.i	Total credit hours		
	Compulsory	90	100
	Elective	0	0
	Optional	0	0
b.iii	credit hours of basic sciences courses	6	6.67
b.iv	credit hours of courses of social sciences and humanities	0	0
b.v	credit hours of specialized courses:	53	58.89
b.vi	credit hours of other courses	8	8.89
b.vii	Practical/Field Training	8	8.89
b.viii	Program Levels (in credit-hours system):		
	Level 1: 1 st part	14	15.56
	Level 2: 2 nd Part	53	58.89
	Level 3: Thesis	15	16.67

6. Program Courses: 6 courses are compulsory:

6.1- Level of program:

Semester 1

First part:

a. Compulsory

Course Title	Total No. of credit hours	No. of hours /week			Program ILOs Covered
		Lect.	Lab.	Clinical	
FIRST PART					
a- Minors:					
Biostatistics and Computer	3	2	2		a.12, a13, b.11, b.12, c.8, d.2,d5
Research methodology	3	2	2		a.11, a14, a15, b.3, b.4, b.8, b.10, c.6, c7, d.5,d.6
Primary medical reports	2	1	2		a.16, b.1, c.2, d.1
b- Basic sciences:					
Mycology	3	3	-	-	a1, a2, a3, a5, a6, a9, b2, c4
Pathology	3	3	-	-	a5, a6, a9, b2, c4
SECOND PART					
Dermatology	30	4	----	7	a.1, a.2, a.3, a.4, a.5, a.6, a.7, a.8, a.9, a.10, a.17, a.18, b.1, b.2, b.5, b.6, b.7, b.8, b.9, c.1, c.3, c.4, c.5, c.6, d.1, d.3, d.4, d.5, d.6, d.7
Venereology & Andrology	23	3.25	-----	5	a.1, a.2, a.3, a.4, a.5, a.6, a.7, a.8, a.9, a.10, a.17, a.18, b.1, b.2, b.5, b.6, b.7, b.8, b.9, c.1, c.3, c.4, c.5, c.6, d.1, d.3, d.4, d.5, d.6, d.7

7. Program Admission Requirements

I- General Requirements.

- Candidate should have either MBBch degree from any Egyptian Faculty of Medicine or Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
- Candidate should know how to speak & write English well
- Candidate should have computer skills.
- Follow postgraduate bylaw Regulatory rules of Aswan Faculty of Medicine approved by the ministerial decree No. (...), dated

II- Specific Requirements

- Master degree in Dermatology, Venereology & Andrology with at least "Good Rank".

8. Regulations for Progression and Program Completion

Duration of program is 90 credit hours (≥ 7 semesters ≥ 3.5 years), starting from registration till acceptance of the thesis; divided to:

First Part: (14 Credit hours ≥ 6 months ≥ 1 semester):

- Program-related basic science, Research Methodology, Ethics & medical reports, Biostatistics and computer.
- At least six months after registration should pass before the student can ask for examination in the 1st part.
- Two sets of exams: 1st in October — 2nd in April after fulfillment of the credit hours.
- At least 60% of the written exam and 60% of the total oral and practical/clinical is needed to pass in each course.
- For the student to pass the first part exam, a score of at least 60% (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only.
- GPA of ≥ 1.3 is needed to pass this level (semester).

Second Part: (53 Credit hours ≥ 24 months = 4 semesters):

- Program related specialized science of Dermatology, Venereology & Andrology courses. At least 24 months after passing the 1st part should pass before the student can ask for examination in the 2nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (8 Credit hours; with obtaining $\geq 75\%$ of its mark) is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; as following:

Activity		Hrs
Grand rounds	اجتماع علمي موسع	6
Training courses	دورات تدريبية	12/ day
Conference attendance	حضور مؤتمرات علمية	12/day
	داخلي خارجة	18/day
Thesis discussion	حضور مناقشات رسائل	6
Workshops	حضور ورش عمل	12/day
Journal club	ندوة الدوريات الحديثة	6
Seminars	لقاء علمي موسع	6
Morbidity and Mortality conference	ندوة تحليل المخاطر المرضية أو الوفاة	6
Self-education program	برنامج التعليم الذاتي	6

- Two sets of exams: 1st in October - 2nd in April.
- At least 60% of the written exam is needed to be admitted to the oral and practical exams.
- 4 times of oral and practical exams are allowed before the student has to re-attend the written exam.

Third Part (Thesis) (15 Credit hours =24-48 months=4-8 semester):

- Documentation of the subject should not be delayed for > 1.5 years after registration.
- Could start after registration and should be completed, defended and accepted after passing the 2nd part final examination, after passing of at least 24 months after documentation of the subject of the thesis and after publishing of at least one paper from the thesis in a specialized peer-reviewed journal.
- Accepting the thesis is enough to pass this part.

9. Methods of student assessments:

Method of assessment	weight	The assessed ILOs
1-Research assignment	50%	- General transferable skills, intellectual skills
2-Written Exams:		- Knowledge
-Short essay: 40%		- Knowledge
-structured questions: 25%		- Knowledge, intellectual skills
-MCQs: 20%	50%	- Intellectual skills, General transferable skills
-Commentary, Problem solving: 15%		- Practical skills, intellectual skills, general transferable skills
3-OSCE/ OSPE		- Knowledge, Intellectual skills, General transferable skills
4-Structured Oral Exams		

Assessment schedule:

Part I:

- Biostatistics & Computer: Written Exam (2 hours) + Structured oral Exam+ OSPE
- Research Methodology: Written Exam (2 hours) + structured oral Exam+ OSPE
- Primary medical reports: Written Exam (2 hour) + Structured oral Exam+ OSPE
- Mycology: Written Exam (2 hour) + Structured oral Exam
- Pathology: Written Exam (2 hour) + Structured oral Exam

Part II:

- Dermatology, Venereology & Andrology: Four Written Exams (3 hours for each) + one written exam containing commentary (1.5 hours) + OSCE + Structured oral Exam.

10. Evaluation of Program:

Evaluator	Tool	Sample
1- Senior students	Questionnaire	4
2- Alumni	Questionnaire	4
3- Stakeholders (Employers)	Questionnaire	2
4- External Evaluator(s) (External Examiner(s))	Reports	1
5- Other		

COURSE SPECIFICATIONS OF BIOSTATISTICS AND COMPUTER FOR MEDICAL DOCTORATE DEGREE IN DERMATOLOGY, VENEROLOGY AND ANDROLOGY

1. Program on which the course is given: Medical Doctorate Degree in Dermatology, Venereology and Andrology
2. Major or Minor element of program: minor
3. Department offering the program: Department of Dermatology, Venereology and Andrology
4. Department offering the course: Department of Community Medicine.
5. Academic year / Level: 1st part

A. Basic Information:

Title: Biostatistics and computer.

Code DVA021

Total hours

lecture	practical	total	credit
30	30	60	3

B. Professional Information

1. Overall Aims of Course:

The aim of this program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mystery of the practice of biostatistics specialty and necessary to provide further training and practice in the field of Dermatology, Venereology and Andrology through providing recent scientific knowledge essential for the mystery of practice of biostatistics according to the international standards.

2. Intended Learning Outcomes of Courses (ILOs):

a) *Knowledge and understanding:*

By the end of the course, the student is expected to be able to:

- a1. Mention different programs of analysis of data and statistical packages
- a2. Define the recent advances of sources of data and methods of collection.
- a3. Summarize data, construct tables and graphs
- a4. Calculate measures of central tendency and measures of dispersion
- a5. Describe the normal curves and its uses
- a6. Illustrate selected tests of significance and the inferences obtained from such tests
- a7. Illustrate selected tests of significance for parametric and non parametric inferences
- a8. Identify factor analysis and discrimination analysis
- a9. Mention how to comment on graphs and tables of statistical analysis.

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

- b1. Enumerate how to collect and verify data from different sources
- b2. Interpret data to diagnose prevalent health problems in the field of Dermatology, Venereology and Andrology

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

- c1. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of health problems in the field of Dermatology, Venereology and Andrology

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d1. Use appropriate computer program packages.
- d2. Use of different sources for information and knowledge about biostatistics.

3. Contents:

Topics	No. of hours	Lectures	Tutorial/practical
-Recent advances in collection, analysis and interpretation of data	6	3	3
-Details of Tests of significance: Proportion test	6	3	3
-Chi-square test	6	3	3
-Student T test	6	3	3
-Paired T test	6	3	3
-Correlation	4	2	2
-Regression	6	3	3
-ANOVA test	4	2	2
-Discrimination analysis	6	3	3
-Factor analysis	4	2	2
- parametric and non parametric tests	6	3	3
Total Hours	60	30	30
Total Credit Hours	3	2	1

4. Teaching and Learning Methods

- 4.1- Lectures
- 4.2- Practical sessions
- 4.3- Computer search assignments
- 4.4- Computer application

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

- Assessment 1 Final written exam Week: 24
- Assessment 2 Final Structured Oral Exam Week: 24
- Assessment 3 Attendance and absenteeism throughout the course
- Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	%	50
Final Structured Oral Exam	%	50
Total	100	%

Formative only assessments: attendance and absenteeism and Computer search assignments performance.

6. List of References:

6.1- Essential Books (Text Books)

1. Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc

6.2- Recommended Books

- 1- Dimensions of Community Health, Boston Burr Ridge Dubuque.
- 2- Short Textbook of preventive and social Medicine. Prentice-Hall International Inc.
- 3- Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo

6.3- Periodicals, Web Sites ... etc

1. American Journal of Epidemiology
2. British Journal of Epidemiology and Community Health
3. WWW. CDC and WHO sites.

7. Facilities Required for Teaching and Learning:

1. Adequate conditioned space for staff and assistants.

2. Adequate conditioned teaching facilities.
3. Audiovisual Aids: Data show, overhead and slide projectors and their requirements

COURSE SPECIFICATIONS OF RESEARCH METHODOLOGY FOR MEDICAL DOCTORATE DEGREE IN DERMATOLOGY, VENEROLOGY AND ANDROLOGY

1. Program on which the course is given: Medical Doctorate Degree in Dermatology, Venereology and Andrology
2. Major or Minor element of program: minor
3. Department offering the program: Department of Dermatology, Venereology and Andrology
4. Department offering the course: Department of Community Medicine.
5. Academic year / Level : 1st part

A. Basic Information:

Title: Research Methodology

Code: DVA021

Total hours:

Title	lecture	practical	total	credit
Research methodology	30	30	60	3

B. Professional Information

1. Overall Aims of Course:

1. The aim of this program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mystery of the practice of Research methodology.
2. To influence the students to adopt an analytical thinking for evidence based medicine

2. Intended Learning Outcomes of Courses (ILOs):

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a1. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
- a2. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
- a3. Describe the study design, uses, and limitations.
- a4. Mention the recent advances of principles, methodologies, tools and ethics of scientific research.
- a5. Explain the strategies and design of researches.
- a6. Describe bias and confounding.
- a7. Describe sampling techniques and list advantages of sampling
- a8. Identify principles of evidence based medicine
- a9. Identify different types of studies, the design, uses, and advantages and disadvantages of each type.
- a10. Identify principles of questionnaire design.

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

- b1. Conduct research studies that add to knowledge.
- b2. Formulate scientific papers in the area of Dermatology, Venereology and Andrology
- b3. Innovate and create researches to find solutions to prevalent health problems in the area of Dermatology, Venereology and Andrology
- b4. Criticize researches related to Dermatology, Venereology and Andrology

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

- c1. Enumerate the basic and modern professional skills in conducting researches in the area of Dermatology, Venereology and Andrology.
- c2. Design new methods, tools and ways of conducting researches

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d1. Use of different sources for information and knowledge to serve research.
- d2. Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

3. Contents

Topic	No. of hours	Lecture	Tutorial/P ractical
Details of epidemiological studies (case control, cohort and cross sectional)	8	4	4
Clinical trials, Quasi experimental study	6	3	3
Bias and errors	6	3	3
Setting a hypothesis	6	3	3
Recent advances in screening	6	3	3
Evidence – based Medicine:			
Concept and examples	4	2	2
Applicability	4	2	2
Scientific writing:			
A protocol	4	2	2
A curriculum	4	2	2
Setting an objective	2	1	1
Critical thinking	2	1	1
Formulation of papers	8	4	4
Total Hours	60	30	30
Total Credit Hours	3	2	1

4. Teaching and Learning Methods

- 4.1- Lectures.
- 4.2- Computer search assignments

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

- Assessment 1 Final written exam Week: 24
- Assessment 2 Final Structured Oral Exam Week: 24
- Assessment 3 Attendance and absenteeism throughout the course
- Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	50	%
Final Structured Oral Exam	50	%
Total	100	%

Any formative only assessments Attendance and absenteeism throughout the course

Computer search assignment performance throughout the course

6. List of References:

6.1- Essential Books (Text Books)

1. Maxy- Rosenau Public health and preventive medicine, Prentice – Hall International Inc.

6.2- Recommended Books

1. Dimensions of Community Health, Boston Burr Ridge Dubuque.
2. Short Textbook of preventive and social Medicine. Prentice-Hall International Inc.
3. Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo

6.3- Periodicals, Web Sites, ... etc

1. American Journal of Epidemiology
2. British Journal of Epidemiology and Community Health
3. WWW. CDC and WHO sites

7. Facilities Required for Teaching and Learning:

- Adequate conditioned space for staff and assistants.
- Adequate conditioned teaching facilities.
- Audiovisual Aids: Data show, overhead and slide projectors and their requirements.

COURSE SPECIFICATIONS OF PRIMARY MEDICAL REPORTS FOR MEDICAL DOCTORATE DEGREE IN DERMATOLOGY, VENEROLOGY AND ANDROLOGY

1. Program on which the course is given: Medical Doctorate Degree in
2. Dermatology, Venereology and Andrology
3. Major or Minor element of program: minor
4. Department offering the program: Department of Dermatology, Venereology and Andrology
5. Department offering the course: Department of Forensic Medicine & Clinical Toxicology

6. Academic year / Level: 1st part

A. Basic Information:

Title: Primary medical reports

Code: DVA021

Total hours:

Title	lecture	practical	total	credit
Primary medical reports	15	30	45	2

B. Professional Information:

1. Overall Aims of Course:

1. Describe principles of toxicology of different types of poisonous substances and drugs which operate on human body including classification, mechanism of action, clinical features of toxicity, circumstances and diagnosis
2. Describe general management of poisoned patient (alert and comatose) and antidotal measures for different drugs and toxic substances.
3. Provide basic knowledge of different medico-legal aspects of medical practice.
4. Provide basic knowledge of medical ethics and malpractice.
5. Describe the theories and principles that govern ethical decision-making, especially of the major ethical dilemmas in medicine.

2. Intended Learning Outcomes of Courses (ILOs):

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a1. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of Dermatology, Venereology and Andrology.

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

- b1. Interpret the features of different types of poisonous plant for proper diagnosis and management.

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

c1. Identify and write standard medical report about a case of poisoning, and write death certificates.

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

d1. Present toxicological reports in seminars effectively.

3. Contents:

Topic	No. of hours	Lecture	Practical
Definition of poison, classification of poison and factors that influence toxicity	6	1	4
Management of poisoning including: respiratory support, circulatory support and neurological support	7	1	3
Diagnosis of poisoning	7	2	4
Treatment of poisoning including: dilution, emesis, gastric lavage, adsorbents, demulcent, endoscopic, whole bowel irrigation and topical decontamination	7	1	4
Elimination of toxic agents including: forced diuresis, peritoneal dialysis, hemodialysis and hemoperfusion	10	2	5
Specific antidotes, toxicological sampling and permanent infirmity	8	1	5
How to write a toxicological report & How to write death certificate	10	2	5
Obligation of physicians (towards patients, colleagues, community)	1	1	-
Consent, and professional secrecy	1	1	-
Types of malpractice, and items of medical responsibility	1	1	-
Medicolegal aspects of organ transplantation, intersex states, euthanasia, assisted reproduction techniques	1	1	-
Ethical considerations of medical research involving human subjects	1	1	-
Total hours	45 h	15	30 h

4. Teaching and Learning Methods:

- 4.1- Lectures
- 4.2- Practical lessons with demonstration of specimens and photographs
- 4.3- Assignment

5. Student Assessment Methods:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule:

Assessment 1: Final written exam	week: 24
Assessment 2: Structured Oral Exam	week: 24

Weighting of Assessments:

Written Examination	50 %
Structured Oral Exam	50%
Total	100%

Formative only assessment: simple research assignment, attendance and absenteeism

6. List of References:

6.1-Essential Books (Text Books)

Lectures notes prepared by Asuit University staff members.

6.2- Recommended Books

1. Ballantyne, B, Marrs, T.C., and Syversent (2000): General & Applied Toxicology. 2nd edition, Macmillan Reference LTS, USA

2. Veatch, R, M: (1997): Medical ethics. 2nd edition, Jones & Barlett Publishers, Sudbury Massachusutts, USA,

6.3- Periodicals, Web Sites, ... etc

American Journal of toxicology.

7. Facilities Required for Teaching and Learning:

- 7.1- Appropriate teaching accommodation, including laboratory equipments and photographs
- 7.2- Facilities for field work: hospital visits, and library visits
- 7.3- Computers with net connection
- 7.4- Data Show and overhead projectors

COURSE SPECIFICATION OF MEDICAL MYCOLOGY FOR DOCTORATE DEGREE IN DERMATOLOGY, VENEROLOGY AND ANDROLOGY

1. Program on which the course is given: Doctorate Degree in Dermatology, Venereology and Andrology
2. Major or Minor element of program: Minor
3. Department offering the program: Department of Dermatology, Venereology and Andrology
4. Department offering the course: Department of Medical Microbiology & Immunology
5. Academic year / Level : 1st part

1. Basic Information

Title: Mycology.

Code: DVA021

Total hours:

Lectures:	Practical:	Tutorial	Total:	credit hours
45 h	---	-----	45	3

2. Professional Information

1. Overall Aims of Course:

By the end of the course the postgraduate student should be efficiently able to have basic knowledge of the fungi affecting human beings all over the world and particularly in Egypt, and learn to use the knowledge gained from applied mycology to better understand the pathology, clinical symptoms, complications and the laboratory tests needed for diagnosis of each disease.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and Understanding:

By the end of the course the graduate is expected to:

- a1. Mention the recent advances in structure and classification of the fungi.
- a2. List recent advances in the natural history of Dermatological and Venereal problems caused by fungi.
- a3. Enumerate recent advances in the diagnostic and laboratory techniques necessary to establish diagnosis of dermatological and venereal illnesses that caused by fungi.
- a4. Mention the causation of disease and disease pathogenesis.
- a5. Enumerate methods of promoting health and preventing illness.
- a6. Describe the scientific methods of establishing disease causation.

b) Intellectual Skills:

By the end of the course, the student is expected to:

- b1. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Dermatological and Venereal problems.
- b2. Identify Dermatological and Venereal problems and find solutions.

c) Professional and Practical Skills:

By the end of the course, the student should be able to:

- c1. Interpret the results of diagnostic procedures.

d) General and Transferable Skills:

By the end of the course, the student should have the ability to:

- d1. Use information technology of microbiology and immunity to serve the development of professional practice.

3- Contents:

Topic	No. of hours	Lecture	Practical
Superficial mycoses			
<i>Pityriasis versicolor</i>	2	2	
<i>Tinea nigra</i>	2	2	
<i>Black piedra</i>	2	2	
otomycosis	2	2	
dermatophytosis	2	2	
<i>onychomycosis</i>	3	3	
<i>candidosis</i>	2	2	
Subcutaneous mycoses			
<i>sporotrichosis</i>	2	2	
<i>mycetoma</i>	3	3	
<i>chromoblastomycosis</i>	2	2	
<i>phaeohyphomycosis</i>	2	2	
<i>lobomycosis</i>	2	2	
<i>rhinosporidiosis</i>	2	2	
<i>Subcutaneous zygomycosis</i>	2	2	
Systemic mycoses			

<i>histoplasmosis</i>	2	2	
<i>blastomycosis</i>	2	2	
<i>coccidioidomycosis</i>	2	2	
<i>cryptococcosis</i>	2	2	
<i>zygomycosis</i>	2	2	
<i>Systemic candidiosis</i>	3	3	
<i>protothecosis</i>	2	2	
Total	45 hr	45 hr	

4- Teaching and Learning Methods:

4.1- Lectures

4.2- Assignment

5- Student Assessment Methods:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exams:	- Knowledge
-Short essay: 40%	- Knowledge
-structured questions: 25%	- Knowledge, intellectual skills
-MCQs: 20%	- Intellectual skills, General transferable skills,
-Commentary, Problem solving: 15%	- Practical skills, intellectual skills
5.3-Structured Oral Exams	- Knowledge

Assessment Schedule

Assessment 1: Final written exam week: 24-28

Assessment 2: Oral exam week: 24-28

Weighting of Assessments:

50 % Final Written Examination

50 % Oral Examination

0% Other types of assessment

100% Total

Formative only assessment: simple research assignment, attendance and absenteeism

6- List of References:

6.1- Essential Books (Text Books):

Medical microbiology and immunology by Prof. Abla Elmeshad

6.2- Recommended Books:

- Jawetz Medical Microbiology.
- Roitt Essential Immunology.
- Abbas Clinical Immunology
- Alberts Molecular Biology
- A coloured Atlas of Microbiology.
- Topley and Wilson, Microbiology

6.3- Periodicals, Web Sites, ... etc

- Microbiology Immunology
- <http://mic.sgmjournals.org/>

COURSE SPECIFICATIONS OF PATHOLOGY FOR DOCTORATE DEGREE IN DERMATOLOGY, VENEROLOGY AND ANDROLOGY

1. Program on which the course is given: Doctorate Degree in Dermatology, Venereology and Andrology
2. Major or Minor element of program: Minor
3. Department offering the program: Department of Dermatology, Venereology and Andrology
4. Department offering the course: Department of Pathology
5. Academic year / Level : 1st part

A. Basic Information:

Title: Pathology

Code: DVA021

Total hours:

Lectures:	Practical:	Tutorial	Total:	credit hours
45 h	---	-----	45	3

B. Professional Information:

1. Overall Aims of Course:

By the end of the course, the post graduate students should be able to have the professional knowledge of the pathology of medical diseases.

2. Intended Learning Outcomes (ILOs):

a) Knowledge and Understanding:

By the end of the course, the student should be able to:

- a1. Mention the recent advances in the normal structure of the human integumentary and reproductive systems on the micro levels.
- a2. List the recent advances in the normal growth and development of the human integumentary and reproductive systems.
- a3. Mention the recent advances in the abnormal structure, growth and development of human integumentary and reproductive systems and natural history of various dermatological, venereal and andrological diseases.
- a4. Mention the recent advances in the natural history of Dermatological, Venereal and Andrological problems from the pathological point of view with understanding the related basis of general and systemic pathology.
- a5. Mention the recent advances in the causation of disease and disease pathogenesis and correlate gross and microscopic histopathology with the clinical features.
- a6. Describe the scientific methods of establishing disease causation.

b) Intellectual Skills:

By the end of the course, the student should be able to:

- b1. Link between knowledge of Pathology for Professional problems' solving.

c) Professional and Practical Skills:

By the end of the course, the student should be able to:

- c1. Diagnose common illnesses with the aid of the macroscopic and microscopic criteria of the altered structure (pathology) of the body and its major organs and systems that are seen in various diseases related to Dermatology, Venereology and Andrology.

d) General and Transferable Skills:

By the end of the course, the student should be able to:

- d1. Use information technology of Pathology to serve the development of professional practice

3. Course contents:

Topic	No. of hours	Lecture	Practical
1- General Pathology:			
1.1. Inflammation & repair.	2	2	
1.2. Cell response to injury and aging.	2	2	
1.3. Immunity and hypersensitivity.	2	2	
1.4. Pigmentation.	2	2	
1.5. Bacterial infection.	2	2	
1.6. Tuberculosis.	2	2	
1.7. Leprosy.	2	2	
1.8. Viral diseases.	2	2	
1.9. Mycotic diseases.	2	2	
1.10. Protozoal diseases.	2	2	
1.11. Vitamin deficiency.	2	2	
1.12. Effect of ionizing irradiation.	2	2	
2- Male genital system:			
2.1. Inflammation & infection.	2	2	
2.2. Male infertility & testicular biopsy.	2	2	
3- Female genital system:			
3.1. Inflammation & infections of the vulva, vagina & cervix uteri.	2	2	
3.2. Mastitis & Paget's disease of the breast.	2	2	
4- Skin:			
4.1. Introduction to dermatopathologic diagnosis.	2	2	
4.2. Biopsy & laboratory techniques.	2	2	
4.3. Dermatitis & dermatosis.	2	2	
4.4. Discoid I lupus erythematosus & scleroderma.	1	1	
4.5. Tumors & tumor like lesions of the skin.	2	2	
4.6. Tumors of the epidermis & dermis	1	1	
4.7. Tumors of skin appendages.	2	2	
4.8. Nevi & melanomas.	1	1	
Total:	45	45	

4. Teaching and Learning Methods:

4.1- Lectures

4.2- Practical lessons (Gross and histopathology (Jars & slides)

4.3- Assignment

5. Student Assessment Methods:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exams:	- Knowledge
-Short essay: 40%	- Knowledge
-structured questions: 25%	- Knowledge, intellectual skills
-MCQs: 20%	- Intellectual skills, General transferable skills,
-Commentary, Problem solving: 15%	- Practical skills, intellectual skills
5.3-Structured Oral Exams	- Knowledge

Assessment Schedule:

Assessment 1: Final written exam week: 24-28

Assessment 2: Oral exam week: 24-28

Weighting of Assessments:

50 % Final Written Examination

50 % Oral Examination

0% Other types of assessment

100% Total

Formative only assessment: simple research assignment, attendance and absenteeism

6. List of References:

6.1- Essential Books (Text Books):

Principles of General and Special Pathology; Gamal Nada.

6.2- Recommended Books:

- Lever's Histopathology of skin.
- Muir's text book of pathology.
- Robbins pathologic basis of diseases.
- Rosai & Ackerman text book of pathology.
- Sternberg text book of pathology.

6.3 Periodicals: American journal of pathology:

Web Sites: <http://www.ncbi.nlm.nih.gov/pubmed/>

<http://www.uscap.com>

7. Facilities Required for Teaching and Learning:

- a. Library & textbooks.
- b. Computer & data show.
- c. Internet connection.

COURSE SPECIFICATION OF DERMATOLOGY, VENEROLOGY AND ANDROLOGY FOR MEDICAL DOCTORATE DEGREE IN DERMATOLOGY, VENEROLOGY AND ANDROLOGY

1. Major or minor element of program: major
2. Department offering the program: Dermatology, Venereology, and Andrology Department.
3. Department offering the course: Dermatology, Venereology, and Andrology Department.
4. Academic year / Level: 2nd

A. Basic Information

Title: Dermatology & Venereology and Andrology Courses for Doctorate degree (Second part)

Code: DVA021

Total hours:

Module	Lectures	Practical	Total	Credit hours
Dermatology	240 hrs	420 hrs	660 hrs	30
Venereology & Andrology	195 hrs	300 hrs	495 hrs	23

B. Professional Information

1. Overall Aims of Course:

Dermatology module:

By the end of the course and training, the graduates should be able to:

- Properly describe a dermatology case using the terminology accepted by dermatologists in order to be able to communicate with colleagues and consultants in the field.
- Diagnose and effectively treat skin diseases prevalent in the community or those of public health importance.
- Be able to carry out specialist assessment and management of a patient presenting with a dermatosis in both an inpatient and outpatient hospital setting
- Be able to evaluate patients for contact urticaria and type I hypersensitivity and perform prick testing safely.
- Be able to diagnose and manage patients with a photosensitive disease.

Venereology & Andrology module:

By the end of the course and training, the student should be able to:

1. Diagnose and treat STDs prevalent in the community.
2. Be aware of the changing pattern of STDs during the last three decades, their epidemiology and the factors contributing to increased prevalence.
3. Knows the causes, diagnosis and treatment of male infertility
4. Define causes, diagnostic procedures and treatment options of male sexual dysfunction.
5. Diagnose and treat female sexual dysfunction.

2. Intended Learning Outcomes of Course (ILOs):

Dermatology module:

a) Knowledge and Understanding:

By the end of the course, the graduate should be able to:

- a1. Mention the recent advances in the normal structure and function of the human integumentary system on the macro and micro levels.
- a2. Mention recent advances in the normal growth and development of integumentary system.

- a3. Mention the abnormal structure, function, growth and development of human integumentary system and natural history of various dermatological diseases.
- a4. Mention recent advances in the natural history of Dermatological problems.
- a5. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of dermatological illnesses.
- a6. Mention the causation of disease and disease pathogenesis.
- a7. Enumerate methods of promoting health and preventing illness.
- a8. Describe the scientific methods of establishing disease causation of dermatological illnesses.
- a9. Mention the various diagnostic and laboratory techniques necessary to establish diagnosis of various dermatological illnesses.
- a10. List the various therapeutic methods /alternatives used for various dermatological illnesses.
- a11. Mention the principles and fundamentals of quality assurance of professional practice in the field of Dermatology.
- a12. List the effect of professional practice on the environment and the methods of environmental development and maintenance.

b) Intellectual Skills:

By the end of the course, the student is expected to be able to:

- b1. Integrate data acquired through history taking to reach a provisional diagnosis for various Dermatological problems.
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Dermatological problems.
- b3. Assess risk in professional practices in the field of Dermatology.
- b4. Plan to improve performance in the field of Dermatology.
- b5. Identify Dermatological problems and find solutions.
- b6. Have the ability to innovate nontraditional solutions to Dermatological problems.
- b7. Manage Scientific discussion based on scientific evidences and proofs.

c) Professional and Practical Skills

By the end of the course in department of Dermatology, the graduate is expected to be able to:

- c1. Perform physical examination of patients for dermatological system.
- c2. Evaluate and develop methods and tools existing in the area of Dermatology.
- c3. Perform advanced diagnostic and therapeutic procedures in this practice with perfection of basic procedures such as (skin biopsy, intradermal injections using dermojet, electrocautery, phototherapy etc.....) to serve the Dermatological problems.
- c4. Train junior staff through continuous medical education programs.
- c5. Design new methods, tools and ways of professional practice.

d) General and Transferable Skills:

By the end of the course, students are expected to be able to:

- d1. Present reports in seminars effectively.
- d2. Teach others and evaluate their performance.
- d3. Assess himself and identify his personal learning needs.
- d4. Use different sources for information and knowledge.
- d5. Work coherently and successfully as a part of a team and team's leadership.
- d6. Manage scientific meetings according to the available time.

Venereology & Andrology module:

a) Knowledge and Understanding:

By the end of the course, the graduate should be able to:

- a1. Mention the recent advances in the normal structure and function of the human reproductive system on the macro and micro levels.
- a2. Mention recent advances in the normal growth and development of reproductive system.

- a3. Mention the abnormal structure, function, growth and development of human reproductive systems and natural history of various venereal and andrological diseases.
- a4. List recent advances in the natural history of Venereal and Andrological problems.
- a5. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of venereal and andrological illnesses.
- a6. Mention the causation of disease and disease pathogenesis.
- a7. Enumerate methods of promoting health and preventing illness.
- a8. Describe the scientific methods of establishing disease causation of venereal and andrological illnesses.
- a9. Mention the various diagnostic and laboratory techniques necessary to establish diagnosis of various venereal and andrological illnesses.
- a10. List the various therapeutic methods /alternatives used for various venereal and andrological illnesses.
- a11. Mention the principles and fundamentals of quality assurance of professional practice in the field of Venereology and Andrology.
- a12. Mention the effect of professional practice on the environment and the methods of environmental development and maintenance.

b) Intellectual Skills:

By the end of the course, the graduate is expected to be able to:

- b1. Integrate data acquired through history taking to reach a provisional diagnosis for various Venereal and Andrological problems.
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Venereal and Andrological problems.
- b3. Assess risk in professional practices in the field of Venereology and Andrology.
- b4. Plan to improve performance in the field of Venereology and Andrology.
- b5. Identify Venereal and Andrological problems and find solutions.
- b6. Have the ability to innovate nontraditional solutions to Venereal and Andrological problems.
- b7. Manage Scientific discussion based on scientific evidences and proofs.

c) Professional and Practical Skills:

By the end of the course, the graduate is expected to be able to:

- c1. Perform physical examination of patients for reproductive systems.
- c2. Evaluate and develop methods and tools existing in the area of Venereology and Andrology.
- c3. Perform advanced diagnostic and therapeutic procedures in this practice with perfection of basic procedures such as (intracorporeal injections, semen analysis etc) to serve the Venereal and Andrological problems.
- c4. Train junior staff through continuous medical education programs.
- c5. Design new methods, tools and ways of professional practice.

d) General and Transferable Skills:

By the end of the course, students are expected to be able to:

- d1. Present reports in seminars effectively.
- d2. Teach others and evaluate their performance.
- d3. Assess himself and identify his personal learning needs.
- d4. Use different sources for information and knowledge.
- d5. Work coherently and successfully as a part of a team and team's leadership.
- d6. Manage scientific meetings according to the available time.

3. Contents:

Dermatology module:

Topic	No. of hours	Lecture	Practical
Anatomy and functions of skin	20	7	13
Ethical & legal aspects and fundamentals of quality of professional practice in Dermatology	12	5	7
Diagnosis of skin disease	21	7	14
Pathological diagnosis of skin diseases	20	8	12
Molecular biology and basic genetics	20	7	13
Cutaneous pyogenic infections	17	6	11
Cutaneous viral infections	20	8	12

Mycology	22	8	14
Parasitic skin diseases	19	7	12
Mycobacterial Infections	22	8	14
Eczema (Dermatitis)	22	8	14
Papulo-Squamous diseases	22	8	14
Connective tissue disorders	22	8	14
Disorders of sebaceous glands	22	8	14
Disorders of sweat glands	19	7	12
Pigmentary disorders	22	8	14
Diseases of Hair and nails	20	8	12
Genodermatosis	22	8	14
Blistering dermatosis	22	8	14
Non-infectious granulomas	22	8	14
Photodermatosis	22	8	14
Cutaneous vascular diseases	22	8	14
Tumors of the skin	22	8	14
Cutaneous lymphomas	22	8	14
Mastocytosis and histiocytosis	22	8	14
Cutaneous drug reactions	20	8	12
Skin and systemic diseases	22	8	14
Neonatal dermatology	20	8	12
Pruritis and prurigo	21	7	14
Disorders of keratinization	21	7	14
Dermatological surgery	20	6	14
Topical and systemic therapy	18	6	12
Total	660	240	420

Venereology & Andrology module:

Topic	No. of hours	Lecture	Practical
Introduction	9	9	-
Principles of quality of professional practice	9	9	-
Anatomy of genital organs	36	13	23
Physiology of erection and ejaculation	37	14	23
Male sexual dysfunction	43	15	28
Female sexual dysfunction	38	15	23
Semen evaluation	37	14	23
Male infertility	46	16	30
Male urethral discharge	40	14	26

Vaginal infection	37	14	23
Syphilis	42	16	26
Genital ulcers	37	14	23
HIV	42	16	26
Genital dermatosis	42	16	26
Total	495	195	300

4. Teaching and Learning Methods:

4.1-lectures

4.2- Clinical lessons

4.3- Assignment

4.4- Attending and participating in scientific conferences, workshops and thesis discussion to acquire the general and transferable skills needed

5. Student Assessment Methods:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Log book	- General transferable skills
5.3-Written Exam:	- Knowledge
-Short essay: 40%	- Knowledge
-structured questions: 25%	- Knowledge, intellectual skills
-MCQs: 20%	- Intellectual skills, General transferable skills,
-Commentary, Problem solving: 15%	
5.4-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.5-OSCE	-Practical skills, intellectual skills General transferable skills
5.6 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule:

Assessment 1: Review

week: 12-16

Assessment 2: log book	week: 80 (Formative)
Assessment 3: Final written Exam	week: 96-98
Assessment 4: Written case commentary Exam	week: 96-98
Assessment 5: Structured Oral Exam	week: 98-100
Assessment 6: OSCE	week: 98-100
Assessment 7: Review	week: 100-102

Weighting of Assessments:

Written Exam	100 %
(Passing the written exam is a condition for entering the clinical and oral exams)	
OSCE	50 %
Structured Oral Exam	50 %
Formative only assessment: simple research assignment, Log book, attendance and absenteeism	

6. List of References:

Dermatology module:

6.1- Essential Books (Text Books):

- Andrews text book of dermatology, 2011

6.2- Recommended Books:

- Rook`s text book of dermatology, 2010
- Lever`s text book of histopathology

6.3- Periodicals and Web Sites:

- Journal of American Academy of Dermatology
- Clinics in dermatology
- International journal of dermatology
- British journal of dermatology
- www.Sciencedirect.com
- www.pubmed.com
- www.Freebooks4doctors.com
- www.medscape.com

Venereology & Andrology module:

6.1-Essential Books (Text Books)

- Text book of Andrology by Dr. Ashraf Fayez, 2009

6.2- Recommended Books

- Text book of Erectile dysfunction

6.3- Periodicals and Web Sites:

- Journal of urology
- Fertility and Sterility
- British journal of urology
- Asian Journal of Andrology
- www.Sciencedirect.com
- www.pubmed.com
- www.Freebooks4doctors.com
- www.medscape.com

7. Facilities Required for Teaching and Learning:

- Adequate infrastructure including teaching rooms, comfortable desks.
- Teaching tools including screen, slide Projector, computer and data show.
- Laboratory microscopes.

Course Coordinator:

Prof. Moustafa A. El Taieb

Head of Department:

Prof. Moustafa A. El Taieb