

MASTERS DEGREE

Program of the course: Master degree of pathology.

Department offering the course: Pathology department.

Academic year/ level: MSc.1 & 2

Allocated marks: 700 marks

Course duration: 2 academic years

Lecture: 1hr /week

Interactive learning: 1hr /week (52hrs)

(MSc I = 48 hrs MSc.II = 56 hrs Total: 104 hrs)

Practical, administrative & teaching skills: throughout the 2 years

Total hours for practical training: 6hrs /wk (336hrs)

Teaching undergraduates 2hrs /wk 112 hrs total

Administrative duties 2hrs /wk 112 hrs total

I. AIMS OF THE COURSE:

- 1- To produce competent surgical pathologists able to practice at consultant level in their specialty of histopathology & cytology and to take personal responsibility for their work and diagnosis; applying the national and international standards of evidence based pathology and complying with the code of medical laboratory ethics .
- 2- To update knowledge in pathology & cytology, increase skills and develop appropriate professional attitudes.
- 3- To conduct an efficacious research according to the needs of the Egyptian community and be prepared for continuous professional development.
- 4- To demonstrate a good working relationships with colleagues and appropriate communication skills.

II. INTENDED LEARNING OUTCOMES:

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

II A. Knowledge and understanding:

1. **Define and discuss the main disease categories** that may affect the body (general pathology) as well as the basic mechanisms underlying these disorders (etiology , pathogenesis & natural history)
2. **Determine the fate & complications** of each particular disease .
3. **Understand the principles of laboratory processing** within surgical pathology and cytopathology, particularly the principles of specimen dissection, macroscopic description and block selection in neoplastic and non-neoplastic disease.
4. **Understand the basic knowledge of preparation and staining techniques** for common specimen types as well as be able to identify principles of 'special' histochemical and immunohisto-chemical methods and principles of common molecular pathology techniques and know when to resort to them. The candidate should also be able to

- List the panels of antibodies for particular diagnostic applications, e.g. mesothelioma
5. **Describe the microscopic features** of the range of normality within tissues as well as the major common pathological processes and patterns of disease .
 6. **Identify features of malignancy** in sites commonly investigated with cytopathology as well as features of specific non-malignant diagnoses, e.g. infection
 7. **Recognize the principles of performing a research study**, how to use appropriate statistical methods, the principles of research ethics and the structure and function of local research ethics committees and understand the principles of research funding and how to obtain it.
 8. **Understand the principles of evidence-based pathology/cytology** and display a keenness to use evidence in the support of patient care and own decisions therein.
 9. **Awareness of the medico-legal aspects of the practice of pathology and autopsy**
 10. Awareness of relevant strategies to ensure confidentiality and aware of situations when confidentiality might be broken

II B. Professional and practical skills:

- 1- **Able to diagnose malignancy with confidence** in specimens from breast, GI tract, respiratory tract, urinary tract, head and neck, lymphoreticular system, and serous fluids.
- 2- **Integrate clinical information and histology or other investigations** into diagnosis.
- 3- **Write an accurate report** that gives clinicians the information they need.
- 4- **Be able to recognize histological features of histochemical and immunohisto-chemical stains** in normal and diseased tissues in addition to being able to interpret data from molecular analyses in the context of the clinical situation and morphological appearances when undertaking diagnostic surgical pathology.
- 5- **Spreading and fixing a smear** and able to recognize faults and artifacts of preparation of smears, e.g. air-drying.
- 6- **Possess sufficient manual dexterity to perform dissection** safely and accurately, without damage to tissues.
- 7- **Use computers** for producing pathology reports and laboratory statistics, to search databases and to access e-mail and internet services
- 8- **Able to critically appraise evidence.**
- 9- **Able to initiate and complete a research project** by the end of training
- 10- **Communicate** with other members of the pathology department, other departments and clinical teams..

II C. Attitude:

1. Understand the importance of accuracy and requirement for attention to detail during specimen description and block selection and during surgical reporting and the need for correlation with the clinical situation.
2. Understand the increasing need to combine morphological opinions with data from molecular analyses in diagnostic surgical pathology
3. Understand the importance of ensuring that request form and specimen identification is accurate and the requirement to identify and resolve any errors or discordance.
4. Demonstrate an understanding of the importance of surgical pathology to clinicians and patients [e.g. timeliness and accuracy of reporting].
5. Understand cost-benefit issues when considering the use of additional techniques.
6. Display a keenness to use evidence in the support of patient care and own decisions therein.
7. Respect the work of the technical staff in preparing slides for viewing.
8. Awareness of their own limitations & be willing to consult their supervisors and to admit mistakes
9. Develop the habit of lifelong learning by building on previous undergraduate and general medical training experience so that relevant knowledge of disease processes is acquired and maintained at a level consistent with the requirements of independent practice in this group of medical specialties.

Be aware of the requirements of the Egyptian Ministry of Health and regulations of the Medical syndicate, concerning laboratory ethics and practice of the profession and **Act with honesty, sensitivity and promptly**

III. REQUIREMENTS & Training Duration:

REQUIREMENTS

Applicants should have finished their 1 year training as house officers.

DURATION OF TRAINING

The minimum duration of training will be two years after which the candidate is legible to defend his thesis. Training programs should include suitable rotational arrangements to cover all the necessary areas of experience.

SUPERVISION & MONITORING OF PROGRAM

Training programmes will be carried out and supervised by the departmental staff members on a day-to-day basis. The trainee will keep a training record (log book) of their activities which can be used to support educational planning. The educational supervisor will conduct regular supportive appraisals and liaise with the Postgraduate Dean to ensure that records of in Training

Assessment will be completed annually. The training record will be used to ensure that an appropriate amount of time is spent on each activity and that appropriate specialist areas have been covered.

IV. COURSE :

Supervised experience in all three main aspects of the work; diagnostic histopathology, cytopathology and autopsies

V. TEACHING PLAN:

V-A Teaching & learning methods

- 1) Lectures & interactive learning: 1 hour each twice weekly in Dept Post Grad auditorium
- 2) Practical: Biopsy : 2hrsX week Tissue cutting 2hrsXweek Autopsy 2hrsXweek(not yet)
- 3) Administrative work : 2hrsXweek
- 4) Teaching undergraduates according to undergraduate schedule 2hr/wk
- 5) Assignment 4 assignments

	Sept 1	Oct2	Nov3	Dec4	Jan5	Feb6	March7
MSC1	1)G.Principles of lab practice 2)Surgical pathology 3)Teaching 4)Administrative duties	1) Basic histopathology & autopsy 2)Surgical pathology 3)Teaching 4)Administrative duties				1)Immunol & IHisto 2)Surgical pathology 3)Teaching 4)Administrative duties	1) Revision 2)Surgical pathology 3)Teaching 4)Administrative duties
MSCII	1) Lectures & II in Surgical pathology 2)Surgical pathology 3)Teaching 4)Administrative duties				1)Cytopathology 3)Teaching 4) Administrative duties		

DOCTORATES DEGREE

Program of the course: Doctorates degree of pathology.

Department offering the course: Pathology department.

Course duration: 2 academic years

Total teaching hours: 104 hours

[Lectures: 1 hrs.& Interactive learning: 1hr - Practical , administrative & teaching over 2 academic years]

The course offered is similar to that of MSc.II but with more in depth focus on recent advances in certain fields and important problems being faced by the practicing pathologist