



**Program SPECIFICATION FOR
Medical Doctor Degree in Histopathology and Cytopathology
Code: 1710800 University:**

Alexandria

Faculty: Medical Research Institute

Program Specification**A-Basic information****1- Program title:** Medical Doctor of Histopathology and Cytopathology**2- Program type:** Single Double Multiple **3- Department(s):** Pathology**4- Coordinator:** Dr/Sanaa Shawky**5- External evaluator(s):** Prof. Dr. Sherif Lotfy Baiomy – Professor of Pathology
Faculty of Medicine – Tanta University – Egypt. Prof. Dr. Khaireya Abdel
RehimGawish – Professor of Pathology - Faculty of Medicine – Tanta University –
Egypt. Dr. Azeema Nosair – Professor of Pathology Faculty of Medicine – Tanta
University – Egypt**6- Last date of program specification approval:** 5/6/2014**B-Professional Information****1- Program aims:**

The graduate of the doctor degree of Histopathology & Cytopathology program should:

1. Be able to make wise diagnostic decisions throughout his/her career in pathology.
2. Develop skills of interpretation and diagnosis of histopathological and cytological specimens.
3. Use the principles and application of proper recent techniques in research & diagnosis.
4. Participate actively in the teaching activities so that he/she may contribute to the educational experience of other students in the department.
5. Add to the scientific knowledge through research and reasoning.
6. Improve procedures using technology and innovation.
7. Be aware of his role in the development of society and preservation of the environment in the light of regional and global changes.

2- Intended learning outcomes (ILOS)**a- knowledge and understanding:**

- a1- Define mechanisms of hypersensitivity & autoimmune disorders.
- a2- Define different infancy and childhood diseases
- a3- Describe pathology and pathogenesis of renal tumours including recent classification and methods of diagnosis.
- a4- Explain neoplasms of CNS tumours.



- a5- Classify neoplasms of skin (epidermal, adnexal & dermal).
- a6- Describe pathology: gross and microscopic picture of thyroid gland pathology (thyroiditis, Graves disease, diffuse & multinodular goiter, adenomas & carcinomas).
- a7- Explain different diseases of the upper & lower GIT (idiopathic, traumatic, inflammatory, congenital, motordysfunction, reflux, diverticular, infectious, dietary & autoimmune)
- a8 **Recall** interpretation of breast FNAC & TCNB specimens of borderline lesions.

b- Intellectual skills:

- b1- Analyze problems in differentiation between benign and malignant lesions by monotypicality & monoclonality as evidenced by IHC & PCR-based techniques.
- b2- Examine the pathological changes occurring in cardiovascular, hematopoietic & lymphoid tissues. Special interest is given to infancy-related GIT diseases such as Coeliac disease & its characteristic microscopic changes, as well as Hirschsprung disease.
- b3- Appraise the use of panels of immuno-histochemistry to differentiate between different adult renal tumours.
- b4- Categorize the pathological changes occurring in bone & CNS (traumatic, infectious, metabolic, autoimmune, congenital, hereditary as MEN I & II and neoplastic).
- b5- Distinguish the pathological changes occurring in cutaneous & soft tissue tumours.
- b6- Examine the pathological changes occurring in the lung, thyroid, salivary glands & nasopharynx.
- b7- Categorize the pathological changes occurring in GIT, & hepatobiliary tract organs and tissues.
- b8- Distinguish the pathological changes occurring in the breast & female genital tract.

b9 - Write a thesis protocol using a scientific systematic approach to a research problem

c- professional and practical skills:

- c1- Practice Fine Needle Aspiration Cytology (FNAC) technique with and without US-guidance.
- c2- Choose the procedure for labelling, handling and disposing of submitted surgical specimens such as LNs that need special fixation in Bowen & adequate sectioning not to alter the morphology.
- c3- Interpret the immunohistochemical results independently and as part of a team to solve borderline prostatic sextant biopsy specimens.
- c4- Interpret histopathologic inflammatory, degenerative & neoplastic cases from different systems & construct a differential diagnosis.

d- General and transferable skills:

- d1- Work independently or as part of a team
- d2- Use relevant Information Technology
- d3- Demonstrate effective written and oral communication skills
- d4- Design and prepare project proposals



d5-Consider quality and risk issues in laboratory work.

3- Academic standards

3a External references for standards (Benchmarks)

Generic Academic Reference Standards of the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) adopted at MRI council 12/2/2014 and re-adopted at 15/1/2023

Last date of Academic Reference standards (ARS) approval by Institute Council: 15/1/2023

3b Comparison of provision to selected external references

ARS NAQAAE	
A1-Basic facts, theories, of the specialty and related subjects/ fields	a1- Recall pathologic problems of different body systems at molecular, cellular and system level.
A2- Mutual relation between professional practice and effects on environment	a2- Recall pathology of reactive & inflammatory disorders with special reference on etiologic agents & ways of prevention.
A3-Recent advances in the field of practice	a3- Define and Classify neoplasms with the use of ancillary technique as electron microscope, immunohistochemistry & translocation studies.
A4-Details of ethical & legal Practice	a4. Explain possible medico-legal ethics in research & routine pathology fields.
A5-Quality standards of the practice	a5- Recognize the quality standards in pathology practice & research.
A6- Design, conduction & publishing of scientific research	Acquire design, conduction & publishing of scientific research through the thesis.



A7-Ethical considerations in different types of scientific research	a5-Recognize the quality standards in pathology practice & research.
B1-Analyze, deduce, extrapolate & evaluation of information	b1-Appraise recent tools for diagnosis of diseases whether neoplastic, inflammatory or degenerative diseases.
B2- Solve the majority of problems in the specialty according to the available data (complete or incomplete)	b2-Categorize different cases by using ancillary techniques.
B3-Conduct research studies that add to the existing specialty knowledge	b3- Differentiate between various anaplastic tumours by using research results.
B4- Publish scientific articles/papers (in indexed journals)	Publish scientific articles/papers (in indexed journals) Through thesis
B5- Plan and implement (or supervise implementation of) enhancement & Improvement approaches to practice	Plan and implement (or supervise implementation of) enhancement & Improvement approaches to practice Through student questionnaire.
B6- Take decisions in various professional situations (including dilemmas & controversial issues)	b2-Categorize different cases by using ancillary techniques.
B7- Add to the specialty field through creativity & innovation	Add to the specialty field through creativity & innovation through thesis
B8- Manage discussions on basis of evidence and proofs	Manage discussions on basis of evidence and proofs through student seminars.
C1- Competent in all basic and all required advanced professional skills (to be determined according to the specialty board/department)	C1. Practice research and ancillary molecular techniques independently and as a part of a team.



C2- Writeandappraisereports	C2.Applyimmunohistochemicaland acillary techniques reports using recently approved scoring methods
C3- Evaluateandimprovemethodsandtoolsusedin specialty	C3. Apply most recent tumour classifications&recentresearch techniques.
C4- Usetechnologytoadvance practice	Usetechnologytoadvancepractice through thesis
C5- Plan professional developmentcoursestoimprove practice and enhance performance of juniors	C4. Practice regular scientific meetingstoreviewdifficultcases& use of proper techniques to reach a final diagnosis
D1- Communicate effectively using all methods	d1- Communicateeffectivelyusing all methods
D2- Useinformationtechnologyto improve his/her professional practice	d2- Use information technology to improvehis/herprofessionalpractice
D3- Teachandevaluateothers	d3- Teach andevaluateothers
D4- Performselfappraisal&seek continuous learning	d4- Performselfappraisal&seek continuous learning
D5- Usedifferentsourcesof information to obtain data	d5- Usedifferentsourcesof information to obtain data
D6- Workinteamsaswellasa member in larger teams	d6- Workinteamsaswellasa member in larger teams
D7- Managescientificmeetings and appropriately utilize time	d7- Managescientificmeetingsand appropriately utilize time

**4- Curriculum structure and contents****4.a program duration: 3-6 years****4.b program structure:****4.b.i- No. of hours per week in each year/semester:**

Semester	Core course	Elective course
	No of hours	No of hours
First semester	5	-
Second semester	4	3
Third semester	5	-
Fourth semester	4	3

4.b.ii- No. of credit Hours

Lectures	12	Practical	12	Thesis	24	Total	48
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Compulsory	18	Elective	6	Optional	0		
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4.b.v- No. of credit hours of specialized courses

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No. 18 % 75

4.b.vi- No. of credit hours of other courses

e.g. statistics, computer

No. 6 % 25

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4.b.viii- Program levels (in credit-hour system)

Student is required to pass at least 12 credit hours with CGPA not less than C+ before submitting a thesis proposal.



5- Program Courses

5.1- Core Courses(18Cr)

Code	Name	Hour/week		
		Theoretical	Practical	Total Cr
1710801	Generalpathology	1	4	3
1710802	SystemicpathologyI	1	2	2
1710803	SystemicpathologyII	1	4	3
1710804	SystemicpathologyIII	1	2	2
1710805a	Cyto-pathologyIa	1	2	2
1710805b	Cyto-pathologyI b	1	2	2
1710806a	Cyto-pathologyIIa	1	2	2
1710806b	Cyto-pathology IIb	1	2	2
Total		8	20	18

5.2-Elective Courses (6 Cr)

Code	Name	Hour/week		
		Theoretical	Practical	Total Cr
1708820	Immunology	2	2	3
1721820	Medicalstatistics	2	2	3
1715820	InternalMedicine	2	2	3
1700758	Gynecology	2	2	3
1714820	Surgery	2	2	3
1713820	Human Genetics	2	2	3
1706820	Bacteriology	2	2	3
1707820	Parasitology	2	2	3

5.3- Elective II (None)

5.4-Optional–(none)

6- Program admission requirements

Postgraduate medical students with M.Sc. of Pathology.

7 teaching and learning methods from matrix below

**8 Regulations for progression and program completion**

For the progression and completion of the program to obtain the degree of Doctor, the student must:

1. Complete 24 credit hours with CGPA of at least C+ through courses
2. Complete 24 credit hours with through thesis.
3. .

7- Evaluation of Students enrolled in the program.

Tool evaluation	Intended learning outcomes being assessed
Written	ILOsa&b
Practical	ILOsc
Oral	ILOsa,b&d
Semester Work	ILOsb&d

Evaluation of the Program

Evaluator	Tool	Sample
1-Senior students	Interview	At least 50%
2- Alumni	Interview	Representative sample
3-Stakeholders (Employers)	Interview	Representative sample
4-External Evaluator(S) or External Examiner(s)	Reports	Prof. Dr. Sherif Lotfy Baiomy Prof. Dr. Khaireya Abdel Rehim Gawish Prof. Dr. Azeema Nosair
5- Other		

Program coordinator:

Name: Dr Sanaa Shawky

Signature:

Department Head:

Name: Prof .Dr .Amani Kazem

Signature:

Date of Department Council Approval: 29/8/2023



CoursesvsprogramILOMatrix

Course Title	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	B1	B2	B 3	B 4	B 5	B 6	B 7	B 8	C 1	C 2	C 3	C 4	D 1	D 2	D 3	D 4	D 5
1710801	x												x							x	x	x	x	x	x
1710802		x	x						x		x						x		x		x	x	x	x	x
1710803	x			x		x			x	x								x				x	x	x	x
1710804								x					x						x			x	x	x	x
1710805a	x				x							x	x					x				x	x	x	x
1710805b		x				x			x					x						x		x	x	x	x
1710806a	x						x			x					x		x					x	x	x	x
1710806b	x									x						x		x				x	x	x	x



Aims vs Graduate Attributes of M.D. Program in Histopathology and cytopathology

Generic Graduate Attributes of NAQAAE	Graduate Attributes of Medical Doctor in Histopathology and cytopathology	
	By the end of this program, Graduate of Medical Doctor in histopathology and cytopathology, <i>should be able to</i>	Aims
Master the basics and methodologies of scientific research.	Understand the principles and application of proper recent techniques in research & diagnosis	Use the principles and application of proper recent techniques in research & diagnosis
Work continuously to add to his/her knowledge in the field of specialty.	Add to the scientific knowledge through research and reasoning	Develop skills of interpretation and diagnosis of histopathological and cytological specimens
Apply the analytical and critical approach to knowledge in the field of specialty and related fields.		Add to the scientific knowledge through research and reasoning.
Integrate knowledge in the field of specialty with related knowledge, deduce and develop relationships between them.	Develop skills of interpretation and diagnosis of histopathological and cytological specimens	
Demonstrate a deep awareness of current problems and modern theories in the field of specialty.	Be aware of his role in the development of society and preservation of the environment in the light of regional and global changes	
Identify professional problems and find innovative solutions to solve them.	Improve procedures using technology and innovation	Improve procedures using technology and innovation.
Master a wide range of professional skills in the field of specialty.	Develop skills of interpretation and diagnosis of histopathological and cytological specimens	
Develop new methods, tools and methods for professional practice.	Improve procedures using technology and innovation	
Use appropriate technological means to serve his professional practice.	Improve procedures using technology and innovation	
Communicate efficiently and lead work teams in	Participate actively in the teaching activities so that	



various professional scenarios.	he/she may contribute to the educational experience of other students in the department	
Take Decision in light of available data.	Be able to make wise diagnostic decisions throughout his/her career in pathology	
Employ and develop available resources efficiently and work to find new resources.		
Show awareness of his/her role in community development and environmental preservation	Be aware of his role in the development of society and preservation of the environment in the light of regional and global changes	
Act in a manner that reflects a commitment to integrity, credibility, and professionalism.		
Commit to continuous self-development and transfer his/her knowledge and experiences to others.	Participate actively in the teaching activities so that he/she may contribute to the educational experience of other students in the department	