



**Program SPECIFICATION FOR
Master Degree in Histopathology and Cytopathology
Code: 1710700**

University: Alexandria

Faculty: Medical Research Institute

Program Specification

A- Basic information

1- Program title: Master of Histopathology and Cytopathology

2-Programtype: single double Multiple

3- Department(s): Pathology

4- Coordinator: Dr/ Sally Gamal

5- External evaluator(s): Prof. Dr. Sherif Lotfy Baiomy – Professor of Pathology– Faculty of Medicine – Tanta University – Egypt. Prof. Dr. Khaireya Abdel Rehim Gawish – Professor of Pathology - Faculty of Medicine – Tanta University – Egypt-. Prof.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 master degree of Histopathology & Cytopathology program should:

1. Produce scientifically and professionally capable pathologist to meet regional and national needs.
2. Integrate information of specialty (histopathology and cytology) to analyze and solve problems.
3. Manage common and less common problems adequately.
4. Prepare a competent pathologist in basic and some advanced procedural and practical skills.
5. Make pathologist able to conduct good scientific research.
6. Develop a new generation of pathologists capable of using proper diagnostic tools with minimal coast to reach an adequate diagnosis (such as special stains, immunohistochemistry, PCR, electron microscopy, image analysis, in situ hybridization,..).
7. Acquire communication skills with clinicians to obtain and deliver complete and accurate data.
8. Share in team work with his colleagues and clinicians to develop programs of screening and early detection of cancer.
9. Act according to integrity and credibility and abide the profession rules.
10. Use systematic approaches to design and conduct scientific research.

2- Intended learning outcomes (ILOS)

a- knowledge and understanding:

- a1- Define and explain mechanisms of hypersensitivity & autoimmune disorders.
- a2- Define and classify neoplasms of lymphoid organs.
- a3- Recall and study male genital system pathology



a4- Recall of different lesions affecting CNS.

a5- Select proper methods and aiding techniques to reach proper diagnosis in skin & soft tissue tumours.

a6- **Recall** the basic cytological features of different cells in sputum cytology

a7- Describe body fluids & brush cytology in different diseases of GIT.

a8 Design, conduction & explore publishing of scientific research.

b- Intellectual skills:

b1- Compare cell structure with its function.

b2- Distinguish the gross and microscopic findings with history for each case of pediatric disease & neoplasia.

b3- Analyze the principle of dealing with different prostatic biopsies. b4- Categorize the pathological changes affecting cells and tissues in bone and CNS lesions.

b5- Differentiate benign and malignant lesions in soft tissue masses.

b6- Categorize the different neoplastic disorders and differentiate between them in GIT & hepatobiliary system.

b7 Prepare scientific articles/papers to be published in indexed journals

b8 Write a thesis protocol using a scientific systematic approach to a research problem

c- Professional and practical skills:

c1- Interpret routine & immunostaining results of tissue sections.

c2- Interpret cases of lymphoma & construct a standardized histopathological report.

c3- Interpret testicular biopsy for infertility

c4- Apply pathological Bone & CNS reports.

d- General and transferable skills:

d1- Develop skills in reading and research.

d2- Use information technology in learning.

d3- Develop team work with skills.

d4- Communicate through group discussion and oral presentations.

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

<p>ARS</p> <p>NAQAEE</p>	
<p>A1-Basic facts, theories, of the specialty and related subjects/ fields</p>	<p>A1. Recognize the basic structure of cells & tissues.</p>
<p>A2- Mutual relation between professional practice and effects on environment</p>	<p>A2. Describe the pathogenesis of various pathologic lesions & study their effects on cells & tissues.</p>
<p>A3- Main scientific advances in the field of practice</p>	<p>A3. Define tumours according to recent advances in pathology field.</p>
<p>A4-Fundamentals of ethical & legal practice</p>	<p>A4. Describe the legal importance of each histopathologic report and ethics in privacy of each patient's disease.</p>
<p>A5 -Quality standards of the practice</p>	<p>A5. Define different methods of quality control used in histopathology laboratory and state the ethics in pathology research and confidentiality of the results.</p>
<p>A6- Basics and ethics of scientific research</p>	<p>A5. Define different methods of quality control used in histopathology laboratory and state the ethics in pathology research and confidentiality of the results</p>
<p>B1 -Interpret, analyze & evaluate the information to solve problems</p>	<p>B1. Analyze difficult cases by the use of tumour cell morphology, panels of immunohistochemistry and ancillary techniques.</p>
<p>B2- Solve some problems that do not conform to classic data (incomplete data)</p>	<p>B1. Analyze difficult cases by the use of tumour cell morphology, panels of immunohistochemistry and ancillary techniques.</p>
<p>B3- Integrate different information to solve professional problems</p>	<p>B1. Analyze difficult cases by the use of tumour cell morphology, panels of immunohistochemistry and ancillary techniques.</p>
<p>B4- Conduct a scientific research &/Or</p>	<p>Apply scientific research &/Or write scientific</p>



write scientific systematic approach to a research problem (hypothesis)	systematic approach to a research problem (hypothesis) through thesis.
B5- Evaluate risks imposed during professional practice.	B3. Appraise the possible hazards of performing FNAC or handling fresh biopsies & fluids for Cytology.
B6- Plan for professional improvement	B2. Compare the histopathologic findings with recent researches to add new prognostic markers and improve diagnosis and use student questionnaire results.
B7- Take professional decisions in wide range of professional situations	B4. Distinguish the proper ancillary technique required to reach a final diagnosis.
C1- Competent in all basic and some of the advanced professional skills (to be determined according to the specialty board/ department)	c1- Illustrate skills in the use of safety procedures and personal protective equipment in the laboratory. c2- practice the procedure for labeling, handling and disposing of submitted surgical specimens c3- Demonstrate and understanding the principle of each technique.
C2- Write and appraise reports	C4. Demonstrate a model histopathologic report for each system and organ
C3- Evaluate methods and tools used in specialty	Use methods and tools used inspecialty throughstudent questionnaire
D1- Communicate effectively using all methods	d1- Communicate effectively using all methods
D2- Use information technology to improve his/her professional practice	d2- Use information technology to improve his/her professional practice
D3- Practice self-appraisal anddetermines his learning needs	d3- Practice self-appraisal anddetermines hislearning needs
D4- Share in determination of standardsfor evaluation of others (e.g.:subordinates/ trainees etc.)	d4- Share in determination ofstandards forevaluation of others (e.g.:subordinates/ traineesetc.)
D5- Use different sources of informationto obtain data	d5- Use different sources ofinformation to obtain data
D6- Work in teams - Manage time Effectively	d6- Work in teams - Manage time effectively
D7- Work as team leader in situations comparable to his work level	d7- Work as team leader in situations comparable to his work level
D8- Learn independently and seekcontinuous learning	d8- Learn independently and seekcontinuouslearning

**4- curriculum structure and contents****4.a program duration: 2-4 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	6	4
Second semester	6	-
Third semester	6	2
Fourth semester	6	-

4.b.ii- No. of credit hours	Lectures	15	Practical	15	Thesis 6	Total 36
	Compulsory	24	Elective	6	Optional	0

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4.b.v- No. of credit hours of specialized courses

(مواد التخصص)

No.	24	%	80
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4.b.vi- No. of credit hours of other courses

(e.g. statistics, computer)

No.	6	%	20
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4.b.viii- Program levels (in credit-hours 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 (24Cr)

Code	CourseTitle	Hour/week		
		Lecture	Practical	Total Cr
1710701	Generalpathology	2	4	4
1710702	SystemicpathologyI	2	4	4
1710703	SystemicpathologyII	2	4	4
1710704	SystemicpathologyIII	2	4	4
1710705a	CytopathologyIa	1	2	2
1710705b	CytopathologyI b	1	2	2
1710706a	CytopathologyII a	1	2	2
1710706b	Cytopathology IIb	1	2	2
Total		12	24	24

2- Elective I (6 Cr)

Code No.	Course Title Elective I	Hour /week		
		Lectures	Practical	Total Cr
1708720	Immunology	1	2	2
1721720	Medicalstatistics	1	2	2
1715720	InternalMedicine	1	2	2
1700758	Gynecology	1	2	2
1714720	Surgery	1	2	2
1713720	Human Genetics	1	2	2
1706720	Bacteriology	1	2	2
1707720	Parasitology	1	2	2

5.3- Elective II (None)

5.4- Optional – (none)

6- Program admission requirements

Graduate students with an M.B.Ch.B. of medicine.

7- Regulations for progression and program completion

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

1. Complete 30 credit hours with CGPA of at least C+ through courses .

2.Complete 6. credit hours with through thesis.

3.Submit a thesis validity report by an examination committee approved by the department council and their members include at least two external examiners

**8-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	questionnaire	At least 50 %
2- Alumni	questionnaire	Representative sample
3- Stakeholders (Employers)	meeting	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. Sally Gamal Eldin

Signature:

Department Head:

Name: Prof .Dr. Amani Kazem

Signature:

Date of Department Council Approval: 29/8/2023



Program aims & ILO's matrix

<i>Program aims</i>	<i>a1</i>	<i>a2</i>	<i>a3</i>	<i>a4</i>	<i>a5</i>	<i>a6</i>	<i>a7</i>	<i>b1</i>	<i>b2</i>	<i>b3</i>	<i>b4</i>	<i>b5</i>	<i>b6</i>	<i>c1</i>	<i>c2</i>	<i>c3</i>	<i>c4</i>	<i>d1</i>	<i>d2</i>	<i>d3</i>	<i>d4</i>
Produce scientifically and professionally capable pathologist to meet regional and national needs.							*												*		
Integrate information of specialty (histopathology and cytology) to analyze and solve problems.				*	*	*						*						*		*	
Manage common and less common problems adequately.	*	*						*		*						*			*		
Prepare a competent pathologist in basic and some advanced procedural and practical skills.							*			*		*	*	*	*	*	*				
Make pathologist that is able to conduct a good scientific research.			*				*	*									*				
Develop a new generation of pathologists capable of using proper diagnostic tools with minimal coast to reach an adequate diagnosis (such as special stains, immunohistochemistry, PCR, electron microscopy, image analysis, in situ hybridization,..).						*							*	*	*	*	*				
Acquisition of communication skills with clinicians to obtain and deliver complete and accurate data.						*				*								*	*	*	*
Share in team work with his colleagues and clinicians to develop programs of screening and early detection of cancer.				*				*			*			*					*		
Act according to integrity and credibility and abide the profession rules.		*							*						*						*



TrainingWorks hops	-	-	-	-	-	-	-	-
Self-Directed Learning	*	*	*	*	*	*	*	*
e-learning	*	*	*	*	*	*	*	*
Project	-	-	-	-	-	-	-	-

Aims vs Graduate Attributes of Master Program in Histopathology and cytopathology

Generic Graduate Attributes of NAQAAE	Graduate Attributes of Master of Science in Histopathology and cytopathology	
	By the end of this program, Graduate of Master of Science in histopathology and cytopathology, <i>should be able to</i>	aims
Apply the basics and methodologies of scientific research and using its various tools proficiently.	Prepare a competent pathologist in basic and some advanced procedural and practical skills	Use systematic approaches to design and conduct scientific research.
Use the analytical methods in the field of specialty	Act according to integrity and credibility and abide the profession rules	Integrate information of specialty (histopathology and cytology) to analyze and solve problems



Apply specialized knowledge in the field of specialty and integrate it with relevant knowledge in his professional practice.	Integrate information of specialty (histopathology and cytology) to analyze and solve problems	Produce scientifically and professionally capable pathologist to meet regional and national needs
Demonstrate awareness of current problems and modern visions in the field of specialty	Share in team work with his colleagues and clinicians to develop programs of screening and early detection of cancer	Manage common and less common problems adequately.
Identify professional problems in the field of specialty and propose solutions to them.	Acquisition of communication skills with clinicians to obtain and deliver complete and accurate data	Manage common and less common problems adequately.
Master an appropriate of professional skills in the field of including use of technology.	Develop a new generation of pathologists capable of using proper diagnostic tools with minimal coast to reach an adequate diagnosis (such as special stains, immunohistochemistry, PCR, electron microscopy, image analysis, in situ hybridization,..)	Develop a new generation of pathologists capable of using proper diagnostic tools with minimal coast to reach an adequate diagnosis (such as special stains, immunohistochemistry, PCR, electron microscopy, image analysis, in situ hybridization,..).
Communicate efficiently and lead work teams.	Share in team work with his colleagues and clinicians to develop programs of screening and early detection of cancer	Acquire communication skills with clinicians to obtain and deliver complete and accurate data.
Take Decision in different professional contexts.	Manage common and less common problems adequately	
Employ the available resources to achieve the highest benefit and maintain them.		
Show awareness of his/her role in community development and environmental preservation in light of global and regional changes.	Produce scientifically and professionally capable pathologist to meet regional and national needs	
Act in a manner that reflects a commitment to integrity, credibility, professionalism, and		



accountability.		
Realize the need for self-development and engaging in continuous learning.	Make pathologist able to conduct good scientific research	