

**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- Program type:** single double multiple **3- Department(s) :** Pathology**4- Coordinator :** Prof Dr/ Amal Sobhy**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**6- Last date of program specification approval:** 8/1/2017**B- Professional Information****1- Program aims:**

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 a 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. Acquisition of 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.

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.

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.

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 a 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)

Date of Academic Reference standards (ARS) approval by Institute Council: 12/2/2014

3b Comparison of provision to selected external references

ARS	
NAQAAE	
A1-Basic facts , theories, of the specialty and related subjects/ fields	A1. Recognize the basic structure of cells & tissues.
A2- Mutual relation between professional practice and effects on environment	A2. Describe the pathogenesis of various pathologic lesions & study their effects on cells & tissues.
A3- Main scientific advances in the field of practice	A3. Define tumours according to recent advances in pathology field.
A4-Fundamentals of ethical & legal practice	A4. Describe the legal importance of each histopathologic report and ethics in privacy of each patient's disease.
A5 -Quality standards of the practice	A5. Define different methods of quality control used in histopathology laboratory and state the ethics in pathology research and confidentiality of the results.
A6- Basics and ethics of scientific research	A5. Define different methods of quality control used in histopathology laboratory and state the ethics in pathology research and confidentiality of



	the results.
B1 -Interpret, analyze & evaluate the information to solve problems	B1. Analyze difficult cases by the use of tumour cell morphology, panels of immunohistochemistry and ancillary techniques.
B2- Solve some problems that do not conform to classic data (incomplete data)	B1. Analyze difficult cases by the use of tumour cell morphology, panels of immunohistochemistry and ancillary techniques.
B3- Integrate different information to solve professional problems	B1. Analyze difficult cases by the use of tumour cell morphology, panels of immunohistochemistry and ancillary techniques.
B4- Conduct a scientific research &/Or write scientific systematic approach to a research problem (hypothesis)	Apply scientific research &/Or write scientific 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 in specialty through student 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 and determines his learning needs	d3- Practice self appraisal and determines his learning needs
D4- Share in determination of standards for evaluation of others (e.g.: subordinates/ trainees etc.)	d4- Share in determination of standards for evaluation of others (e.g.: subordinates/ trainees etc.)
D5- Use different sources of information to obtain data	d5- Use different sources of information 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 seek continuous learning	d8- Learn independently and seek continuous learning

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 Practical Total

Compulsory Elective Optional

4.b.iii- No. of credit hours of basic science courses
(elective from other departments except for computer and statistics) No. %

4.b.iv- No. of credit hours of courses of social sciences and humanities. No. %

4.b.v- No. of credit hours of specialized courses
(مواد التخصص) No. %

4.b.vi- No. of credit hours of other courses
(e.g. statistics, computer) No. %

4.b.vii- Field Training Yes No

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- Compulsory: 24 credits

Code No.	Course Title	No. of credit hours	No. of hours /week	
			Lecture	Practical



1710701	General pathology	4	2	4
1710702	Systemic pathology I	4	2	4
1710703	Systemic pathology II	4	2	4
1710704	Systemic pathology III	4	2	4
1710705a	Cyto -pathology Ia	2	1	2
1710705b	Cyto-pathology Ib	2	1	2
1710706a	Cyto-pathology IIa	2	1	2
1710706b	Cyto-pathology IIb	2	1	2

5.2- Elective – 6 credits

Code No.	Course Title Elective I	No. of credit hours	No. of hours /week	
			Lectures	Practical
1706720	Bacteriology	2	1	2
1707720	parasitology	2	1	2
1708720	immunology	2	1	2
1713720	Human genetics	2	1	2
1721720	Medical statistics	2	1	2
1700758	Gynecology	2	1	2
1715720	Internal Medicine	2	1	2
1714720	Surgery	2	1	2

5.3- Elective II (None)

5.4- Optional – (none)

6- Program admission requirements

Graduate student with M.B.Ch.B. of medicine or equivalent degrees

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 38 credit hours with CGPA of at least C+ .



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

8- Evaluation of Students enrolled in the program.

Tool evaluation	Intended learning outcomes being assessed
Written	ILOs a &b
Practical	ILOs c
Oral	ILOs a ,b &d
Semester Work	ILOs b & 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	Name of evaluator or examiner
5- Other		

Dates of Previous editions/revisions:

Editions/Revisions Number	Date
Edition no.1	2009
Edition no. 2	2011
Edition no.3	5/6/2014
Edition no.3, revision no.1	12/2014
Edition no.3, revision no.2	10/2016
Edition no.3, revision no.3	9/2017



Program coordinator :

Name: Prof Dr Amal Sobhy El Sedfy Signature:

Department Head:

Name: Prof Dr Amal Sobhy El Sedfy Signature:

Date of Department Council Approval: 6/9/2017

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.		*							*					*							*



Courses vs programm ILOs Matrix

Course Title	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	D1	D2	D3	D4
1710701	x							x					x	x				x	x	x	x
1710702		x							x						x			x	x	x	x
1710703			x							x						x		x	x	x	x
1710704				x							x						x	x	x	x	x
1710705a	x					x						x					x	x	x	x	x
1710705b		x			x							x		x				x	x	x	x
1710706a	x						x				x			x				x	x	x	x
1710706b	x				x				x								x	x	x	x	x



ARS vs ILOs matrix

Program ILO's/ Academic standard	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	D1	D2	D3	D4
A1	x				X	X															
A2	x		x	X	X																
A3		x	x	x	x		x														
A4	x	X		x			X														
A5	x	x		x			X														
B1								X		X	x		x								
B2											X		X								
B3												X									
B4									x												
C1														x			x				
C2														x	x						
C3															x						
C4															x	x					
D1																		x	x		X
D2																			x		
D3																		X		x	
D4																					x
D5																			x		
D6																				X	x
D7																				x	x
D8																		x			

Teaching methods vs Course matrix



	1710701 (general)	1710702 (syst path I- CVS+lymphoma)	1710703 (syst path II-renal, male, endocrine)	1710704 (syst path III- bone+CNS)	1710705a (cyto path Ia-soft tissue+skin)	1710705b (cyto path Ib- resp+thyroid+salivary)	1710706a (cyto path IIa- liver+GIT)	1710706b (cyto path IIb breast+femal)
Structure	*	*	*	*	*	*	*	*
Practical	*	*	*	*	*	*	*	*
Main- forming	*	*	*	*	*	*	*	*
Discussion Groups	-	-	-	-	-	-	-	-
Problem Solving	*	*	*	*	*	*	*	*
Case Study	-	-	-	-	-	-	-	-
Field Training	-	-	-	-	-	-	-	-
Role Playing	-	-	-	-	-	-	-	-
Training Workshops	-	-	-	-	-	-	-	-
Self- directed Learning	*	*	*	*	*	*	*	*
Learning	-	-	-	-	-	-	-	-
Project	-	-	-	-	-	-	-	-