PROGRAMME SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme Title & Code	Postgraduate Doctorate degree of Pathology/ PATH 605
(2) Final award/degree	PhD
(3) Department (s)	Pathology Department
(4) Coordinator	Dr.Reham Mohamed Nagib Lecturer in pathology department
(5) External evaluator (s)	Dr. Hala Agena, professor and head of pathology department, Benha University.
(6) Date of approval by the Department`s council	26/7/2016
(7) Date of last approval of programme specification by Faculty council	9/8/2016

Professional information

(1) Programme Aims:

The broad aims of the Programme are as follows:

1- To support our candidates the acquisition of details and advances in general pathologic processes underlying different diseases stressing on pathogenesis .

2- To support our candidates to acquire in depth knowledge about etiology,pathogenesis, morphology, and natural history of diseases within the specific organ systems.

3- To help candidates gaining knowledge about molecular pathology including molecular mechanisms of diseases and molecular diagnostic tools.

4- To enhance the practicle skills of our candidates relevant to further pathology practice focusing on:

- Diagnosis of most surgical specimens
- Provide a differential diagnosis.
- Use of immunohistochemistry
- Writing pathology report for a full range of histopathology and cytopathology.
- To give our candidate the ability to integrate the clinical, investigatory data together with gross and microscopic examination of biopsies for proper diagnosis.
- Interpretation of lab. and other relevant investigation and relate the result to underlying pathology.

5- To provide training in the communication and teaching skills necessary for effective practice as well as team work.

6- To establish the ability to Perform scientific research and community service provided by the pathology department.

(2)Intended learning outcomes

On successful completion of the programme, the candidate will be able to:

A- Knowledge and Understanding

A1: Identify the detailed pathogenesis and morphology of inflammation, tissue repair, cell injury and cell death

A2: Recognize advances in different forms of circulatory disturbances and their underlying pathogenesis

A3: Recognize pathologic features of the immune system stressing on different types of hypersensitivity reactions and autoimmunity

A4: Identify in depth types, pathogenesis and clinical features of different genetic disorders and enlist methods of diagnosis of genetic disorders

A5: Identify different aspects of infections as toxaemia, bacteraemia, septicaemia and pyaemia and pathological features of bacterial, viral, mycotic and parasitic diseases .

A6: Recognize advances in different environmental diseases as tobacco smoking, alcohol consumption, occupational diseases, exposure to irradiation, nutritional disorders and obesity.

A7: Recognize updates in diseases of infancy and childhood as congenital anomalies, prematurity, tumors

A8: Describe the details of carcinogenesis including molecular mechanisms as well as general features of different tumor types including their clinical effects

A9: Recognize how to differentiate tumors from other growth disorders.

A10: Identify details of diseases of the body and its major systems wether nonneoplastic or neoplastic as regard definition, etiology, pathogenesis,morphology , prognosis, fate & complications of such diseases.

A11: Recognize the recent WHO classification for tumors of different body organs.

A12: Identify the advances of cytopathology & immunohistochemistry.

A13: Identify the updated molecular diagnostic techniques and the possible application in surgical pathology.

A14:Recognize the molecular pathogenesis of diseases

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A15: Understand the legal issues relating to surgical pathology and cytopathology reporting

A16: Define the principles and concepts of medical ethics and medical malpractice.

A17: Recognize & define thoroughly the principles of research ethics and in turn be able to plan professiona research design and statistical analysis of data as related to laboratory, clinical, and epidemiologic research

A18: Identify in details non neoplastic pulmonary and CVS diseases, their pathogenesis, morphologic features , prognosis, fate and complications

A19: Describe the morphological features of different types of tumors in the cardiovascular and respiratory systems and recent WHO classification .

A20: Discuss detailed informations about non neoplastic and neoplastic GIT and Liver diseases, their pathogenesis, morphologic features , prognosis, fate and complications

A21: Recognize in depth non neoplastic renal diseases as well as renal tumors

A22: Identify altered structure and function of the hemopoietic and reticuloendothelial systems that are seen in various diseases; definition, etiology, pathogenesis, prognosis, fate & complications of such diseases.

A23: Identify altered structure and function of bone and soft tissue that are seen in various diseases; definition, etiology, pathogenesis, prognosis, fate & complications of such diseases.

A24: Identify recent advances in pathology of female genital system and breast

A25: Identify in details non neoplastic and neoplastic skin diseases, their pathogenesis, morphologic features , prognosis, fate and complications

A26: Identify in depth non neoplastic and neoplastic CNS diseases, their pathogenesis, morphologic features , prognosis, fate and complications

A27: Identify principles of quality assurance and quality control in pathology practice and reporting

B- Intellectual skills

B1: Integrate gross and microscopic data for approaching the diagnosis

B2: Relate the clinical data, investigational data and patient history to reach proper pathologic diagnosis with proper time managing.

B3: Enlist the differential diagnosis of integrated gross and microscopic pathologic features

B4: Use and interpret the immunohistochemical panel that may help in the diagnosis

B5: Analyze Molecular pathogenesis of different diseases and molecular techniques relevant to diagnosis as FISH, PCR, and flow cytometry

B6: Discuss problematic cases with senior staffs and supervisors to improve professional performance.

B7: Construct a research design and choose proper research methodology, statistics, formulate scientific paper.

B8: Differentiate tumors of lung ,liver, kidney, skin ,breast,bone, soft tissue , CVS, GIT, CNS ,female genital, and hematopoietic systems, based on morphologic features, and immunohistochemical features

B9: Consider cost benefit issues when requesting additional techniques

B10: Build up decision making skills

B11: Consider safe practice

B12: Understand types of clinical trial and types of evidence

B13: Manage time and resources effectively in terms of delivering services to patients

C- Professional/practical skills

C1.Dissection and accurate gross descriptions mainly of complex specimens.

C2: Diagnosis of most surgical specimens including grading and staging of tumors

C3: Apply differential diagnosis and problem solving skills .

C4. Issue accurate complete and clear reports supported by recent knowledge or research achievements

C5: Utilize different tools in diagnostic pathology including the ancillary techniques such as immunohistochemistry, flow cytometry & molecular techniques..

C6: Practice diagnostic pathology services in pathology labs in all Mansoura university medical centers including consultation and management of mistakes.

C7: Conduct research.

C8.Show proficiency in tissue selection and interpretation of routine, as well as intraoperative frozen sections,cytology special histochemical, and immunohistochemical procedures.

C9.Apply basic safety precautions to be taken in the anatomic pathology laboratory, including universal precautions against infectious agents and the role of the pathologist in institutional infection control.

C10: Detect technical defects in slide preparation and how to correct them

C11: Present cases at MDT meetings

C12:Apply time management and task prioritisation

C13: use of IT and healthcare information system in medical practice and patient medical records to optimize learning

C14: Show willingness to use guidelines as appropriate

C15: Analyse feedback and comments and integrate them into plans for the service

C16: Appraise the available clinical and laboratory data in coming to diagnostic decisions

D- Communication & Transferable skills

D1: Develop presentation skills and how to respond to feedback positively

D2: Respect ethical relationship with staff and colleagues as well as ethics in research.

D3: Present attitudes that will maximize their educational experiences via continous search in data base and life long learning.

D4: Work in inter-professional teams.

D5: Participate in identifying system errors and implementing potential systems solutions.

D6: Adopt the legal issues relating to surgical pathology and cytopathology reporting

D7: Manage cases at proper time.

D8: Developing safe practice

D9: Following cost-benefit when using additional tests

D10: Prepare to use IT tools within a diagnostic and, where relevant, research setting

D11: Develop the ability to undertake an effective appraisal assessment

Programme-objectives ILOs Matrix

Programme ILOs are enlisted in the first row of the table (by their code number: a1, a2……etc), then the objectives titles or codes are enlisted in first column, and an "x" mark is inserted where the respective course contributes to the achievement of the programme ILOs in question.

Objective	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9	A 10	A 11	A 12	A 13	A 14	A 15	A 16	A 17	A 18	A 19	A 20	A 21
Objective 1	x	x	x	x	x	x	x	x	x							x					
Objective 2										x	x	x			x			x	x	x	x
Objective 3													x	x							
Objective 4																					
Objective 5																x					
Objective 6																	x				

Objective	A 22	A 23	A 24	A 25	A 26	A 27	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	B 9	B 10	B 11	B 12	B 13	C 1	C 2
Objective 1						x	x		x	x							x			x	
Objective 2	x	x	x	x	x			x	x	x		x	x	x	x	x			x		x
Objective 3											x										
Objective 4																				x	x
Objective 5																					
Objective 6													x								

	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C 10	C 11	C 12	C 13	C 14	C 15	C 16	D 1	D 2	D 3	D 4	D 5	D 6
Objective 1						x	x	x		x					x	x	x			
Objective 2	x	x		x		x			x	x	x	x	x	x	x	x	x			
Objective 3			x											x	x	x	x			
Objective 4	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
Objective 5															x	x	x	x	x	x
Objective 6					x						x						x			

Objective	D 7	D 8	D 9	D 10	D 11
Objective 1					x
Objective 2			x	x	
Objective 3					
Objective 4					
Objective 5	x	x	x	x	x
Objective 6				x	

(3) Academic standards:

Academic standards for the programme are attached in Appendix I. in which **NARS** issued by the National Authority for Quality Assurance & Accreditation in Education are used. External reference points/Benchmarks are attached in Appendix II.

3.a- External reference points/benchmarks are selected to confirm the appropriateness of the objectives, ILOs and structure of assessment of the programme:

Benchmark / External reference point: The Royal college of pathologists

Website: **https://www.rcpath.org**/trainees/training.html.
http://www.rcpath.org/resources/pdf/histopathology_curriculum_ar.pdf

3.b- Comparison of the specification to the selected external reference/ benchmark:

- The current specification fulfill requirements of the postgraduate training of the selected external reference.

- The current programme is compatible with the selected external reference in about 60% of the curriculum content and differ in the context of postmortem pathology (autopsy) as it is not part of the current program.

- The curriculum structure of the external reference is divided into stages from A to D but the current postgraduate programme is MSc. Which is divided into first and second parts.

(4) Curriculum structure and contents:

4.a- Duration of the programme (in years or months): 6 semesters

4.b- programme structure:

1- The programme consists of two parts:

- The first part composed of one course which is General Molecular Pathology and immunohistochemistry.
- The second part composed of three courses; General Pathology ,Special Pathology, and Elective Course.

2- Candidates should fulfill a total of 60 credit hours.

3- Logbook includes No. of required performed skills and attendance Appendix III.

●4.b.1: Number of credit hours:

- First part: 5 hours (theoretical)
- Second part: 25 hours (theoretical): 2o hours compulsory course
  5 hours elective course
- Thesis: 15 hours
- Logbook and practical activities: 15 credit hours.

●4.b.2: Teaching hours/week:

First part: Lectures: 5 hours/week Total: 75 teaching hours

Second part: Lectures: 25hours/week Clinical/lab: 15hours/week with Total: 375hours lectures, 450hours practicle

●4.b.3: Number of credit hours for General Molecular Pathology and Immunohistochemisry course (Teached in the first part) = 5 Credit hours represents 8.3% of total hours.

●4.b.4: Number of credit hours for General ,Special Pathology, and elective courses (Teached in the second part) = 25 Credit hours represents 41.7% of total hours

●4.b.5: Number of credit hours for Logbook activities and skill to be performed = 15 credit hours represents 25% of total hours.

●4.b.6: Number of credit hours for Essay = 15 credit hours represent 25% of total hours.

Assessment methods:

For the first part

- Written exam
- MCQ exam

For the second part

- Written exam
- OSPE exam
- Structured Oral exam
- MCQ exams

Assessment schedule:

For the first part

- Final exam(written and MCQ exams)

For the second part

- Final exams

a. **for the compulsory course**
b. **for the elective course**

- Four MCQ exams

(5) Programme courses:

First part

a- Compulsory courses(over 15 weeks)

Course Title	Course Cod	NO. of hours per week					Total teaching hours	Programme ILOs covered (REFERRING TO MATRIX)
		Theoretical		Laboratory /practical	Field	Total		
		Lectures	seminars					
General Molecular Pathology and Immunohistochemistry	PATH 605 MP	5				5	75	A13-14, B5
Advanced studies in medical field: I- Medical researches II- Medical stastistics III- Computer								A17 B7 C7,C13 D 3, D10

b- Elective courses: none

Second part

a- Compulsory courses:

Course Title	Course Code	NO. of hours per week					Total teaching hours	Programme ILOs covered (REFERRING TO MATRIX)
		Theoretical		Laboratory /practical	Field	Total		
		Lectures	seminars					
I. General pathology	PATH 605 GP	10		7		17	Lectures 150hours Practicle 210hours	A1-9, A16, A27 B1,3,4,11 C1,5,8,9,10,12 D1-11
II. Special pathology	PATH 605 SP	10		8		18	Lectures 150hours Practicle 240 hours	A10,11,12,15, A17-26 B2,3,4,6,7,8,9, 10,13 C2-8, C11-16 D1-11
Total		20		15		20	Lectures 180 hours Practicle 240	

b- Elective courses: **one of the following(over 15 weeks)**

Course Title	Course Code	NO. of hours per week					Total teaching hours	Programme ILOs covered (REFERRING TO MATRIX)
		Theoretical		Laboratory /practical	Field	Total		
		Lectures	seminars					
I. CVS and Respiratory 2-GIT and Liver 3-Nephro 4-Breast and Gynecology 5-CNS	PATH 605CR PATH 605GIP PATH 605NP PATH 605GYP PATH	5				5	75hours	A18-26 B7,8,10

6-Hematopath 7-Dermatopath 8-Bone and Soft tissue	605CNP PATH 605HEP PATH605 DP PATH 605BP							
Total		5				5	75hours	

Programme-Courses ILOs Matrix

Programme ILOs are enlisted in the first row of the table (by their code number: a1, a2……etc), then the course titles or codes are enlisted in first column, and an "x" mark is inserted where the respective course contributes to the achievement of the programme ILOs in question.

P.S. All courses` specifications are attached in Appendix III.

Course title	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9	A 10	A 11	A 12	A 13	A 14	A 15	A 16	A 17	A 18	A 19	A 20	A 21
General pathology/ PATH 605 GP	x	x	x	x	x	x	x	x	x							x					
Special pathology/ PATH 605 SP										x	x	x			x		x	x	x	x	x
General Molecular pathology and Immunohistochemistry/ 605													x	x							
Elective course/ PATH 605 (CR, GIP,NP,GYP, CNP, HEP,DP,BP)																		x	x	x	x

Course title	A 22	A 23	A 24	A 25	A 26	A 27	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	B 9	B 10	B 11	B 12	B 13	C 1	C 2
General pathology/ PATH 605 GP						x	x		x	x							x			x	
Special pathology/ PATH 605 SP	x	x	x	x	x			x	x	x		x	x	x	x	x		x	x		x
General Molecular pathology and Immunohistochemistry/ PATH 605											x										
Elective course/ PATH 605 (CR, GIP,NP,GYP, CNP, HEP,DP,BP)	x	x	x	x	x								x	x		x					

	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C 10	C 11	C 12	C 13	C 14	C 15	C 16	D 1	D 2	D 3	D 4	D 5	D 6	D 7	D 8	D 9	D 10	D 11
General pathology/ PATH 605 GP			x			x	x	x		x					x	x	x	x	x	x	x	x	x	x	x
Special pathology/ PATH 605 SP	x	x		x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
General Molecular pathology and Immunohistochemistry/ PATH 605															x	x	x	x	x	x	x	x	x	x	X
Elective course/ PATH 605 (CR, GIP,NP,GYP, CNP, HEP,DP,BP)															x	x	x	x	x	x	x	x	x	x	X

(6) Programme admission requirements:

- **General requirements:**

Previous degree: Master degree
Experience
& According to the faculty postgraduate bylaws

- **Specific requirements (if applicable):**

No specific requirements

(7) Regulations for progression and programme completion:

- Passing the first part exam.
- Student must complete minimum of 60 credit hours in order to obtain the M.D. degree, which include the courses of first and second parts, thesis and activities of the log book.
- Courses description are included in Appendix III.
- Registration for the MD thesis is allowed 18 months from the day of registration to the programme.

Log book fulfillment:

- Student must fulfill a minimum of 15 credit of log book activities
- Lectures and seminars of the previously described courses must be documented in the log book and signed by the lecturer.
- Activities to be recorded in the logbook:

1- Four workshops.
2- Four conferences.
3- Thirty Scientific meetings for pathology specimens discussion.
4- Thirty specimen dissection and preparation
5- Twenty demonstration session.

Final exam:

الجزء الاول:

المقرر	الاختبار	الدرجة تحريري
ألباثولوجيا العامة الجزيئية	اختبار تحريري مدته ثلاث ساعات +اختبار اختيار من متعدد	١٠٠

الجزء الثاني:

المقرر	الاختبار	الدرجة			إجمالي
		تحريري	شفهي	عملي	
الباثولوجيا العامة	إختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار عملي+اختبار اختيار من متعدد	١٠٠	٥٠	٥٠	٢٠٠
الباثولوجيا الخاصة	إختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار عملي +اختبار اختيار من متعدد	١٠٠	٥٠	٥٠	٢٠٠
المقرر الاختياري	اختبار تحريري مدته ساعة ونصف	١٠٠			١٠٠
	اجمالي الدرجة				٥٠٠

(8) Evaluation of Programme's intended learning outcomes (ILOs):

Evaluator	Tools*	Signature
Internal evaluator **(s)**	Focus group discussion Meetings	
External Evaluator **(s)** Dr. Hala Agena	Reviewing according to external checklist report.	
Senior student **(s)**	**none**	
Alumni	**none**	
Stakeholder **(s)**	**none**	
others	**none**	

* TOOLS= QUESTIONNAIRE, INTERVIEW, WORKSHOP, COMMUNICATION, E_MAIL

We certify that all information required to deliver this programme is contained in the above specification and will be implemented. All course specification for this programme are in place.	
Programme coordinator: Name: **Dr.Reham Mohamed Nagib**	Signature & date:
Dean: Name: **Prof. Dr. El Saeed Abd El Hadi**	Signature & date:
Executive director of the quality assurance unit: Name: **Prof. Dr. Seham Gad El-Hak**	Signature & date: