

كلية الطب وحدة ضمان الجودة



Faculty of Medicine Quality Assurance Unit

Master (M.Sc.) Degree Program and Courses Specifications for Pathology

(According to currently applied Credit point bylaws)

Department of Pathology Faculty of medicine Assiut University 2022-2023

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Assiut University Faculty of Medicine Quality Assurance Unit (QAU)



كليـة الـطب وحدة ضمان الجودة

Master degree of Pathology

A. Basic Information

- Program Title: Master degree of Pathology
- **Whature of the program: Single.**
- Department (s) responsible:

Department of Pathology, Faculty of Medicine, Assiut University

- Program Academic director: head of the department: Prof Dr Dalia Elsers
- Coordinator (s):
 - Principle coordinator: Dr Heba El-Deek Mohammed
- Internal evaluators:
 - Prof Mohammed Galal Mostafa
- External evaluator (s):
 - 1 Prof Dr Husssin Abd-moenium, Azhar University
- **4** Date of Approval by the Faculty of Medicine Council of Assiut University: 23-9-2014
- Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University: 27-11-2022.
- **4** Total number of courses: 2 courses+ 1 elective courses

B. Professional Information

1- Program aims

1- Develop a critical evaluation of techniques used in cellular pathology and cytology for the diagnosis and monitoring of diseases and acquire the ability to provide specialist opinion in pathology and competency in diagnosis of histopathology.

2- Demonstrate a core understanding of concepts associated with the scientific basis of human pathology.

3- Develop within the context of Biomedical Sciences, a comprehensive understanding of communication, research and scientific methods.

4- Enable candidates to start professional careers as specialists in Egypt but recognized abroad.

5- To introduce candidates to the basics of scientific medical research.

6- Acquire the ability to communicate effectively in verbal and written form with clinical colleagues, administrative personnel, and technical personnel and demonstrate respectful and caring behavior when interacting with patients and their families.

7- Acquire life-long habits of reading, literature searches, and consultation with colleagues, attendance at scientific meetings, and the presentation of scientific work that is essential for continuing professional development.

2- Intended learning outcomes (ILOs) for the whole program:

2- Intended learning outcomes (ILOs) *for the whole program*:

2/1Knowledge and understanding:

A- Explain essential facts and principles of relevant basic sciences related to Pathology including basics of Histology.

B. Mention essential facts of clinical supportive sciences related to Pathology.

C. Demonstrate sufficient knowledge of the main subjects related to pathology.

D- Give the recent and update developments in the most important themes related to pathology.

E- Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to pathology.

F- Mention the basics and standards of quality assurance to ensure good practice in the field of Pathology.

G- Mention the ethical and scientific principles of medical research methodology.

H- State the impact of common problems related to the field of pathology on the society and how good practice can improve these problems.

2/2 Intellectual outcomes

- A- Correlate the relevant facts of relevant basic and clinically supportive sciences with reasoning, diagnosis and management of common problems of pathologic practice
- B- Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical or practical situations related to pathology.

- C- Design and /or present a case or review (through seminars/journal clubs.) in one or more of common themes or problems relevant to pathology
- D- Formulate management plans and alternative decisions in different situations in the field of pathology.

2/3 Skills

2/3/1 Practical skills

- A. Demonstrate competently relevant laboratory skills related to Pathology.
- B. Use the up to date technology for the conditions related to Pathology.
- C. Develop plans for performing experiments related to Pathology.
- D. Carry out common experiments related to Pathology.
- E. Counsel and educate students, technicians and junior staff, in the lab about conditions related to Pathology; including handling of samples, devices, safety and maintenance of laboratory equipments.
- F. Use information technology in some of the situations related to Pathology.
- G. Share in providing health care services aimed supporting patient care, solving health problems and better understanding of the normal structure and function.
- H. Write competently all forms of professional reports related to the pathologic diagnosis (lab reports, experiments reports).

2/3/2 General skills

Including:

- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism/
- Systems-based Practice

Practice-Based Learning and Improvement

- A. Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).
- B. Appraises evidence from scientific studies.
- C. Conduct epidemiological Studies and surveys
- D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
- E. Facilitate learning of students, lab technical staff and other health care professionals including their evaluation and assessment.

Interpersonal and Communication Skills

- F- Maintain therapeutic and ethically sound relationship with patients, their families, lab technical staff and other health professionals.
- G-Elicit information using effective nonverbal, explanatory, questioning, and writing skills.
- H- Provide information using effective nonverbal, explanatory, questioning, and writing skills.
- I-Work effectively with others as a member of a team or other professional group.

Professionalism Intended learning outcomes

- J- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.
- K- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
- L- Demonstrate sensitivity and responsiveness to others' culture, age, gender, and disabilities.

Systems-Based Practice Intended learning outcomes

M- Work effectively in relevant academic and health care delivery settings and systems including good administrative and time management.

- N-Adopt cost-effective practice and resource allocation that does not compromise quality of services.
- O-Assist patients in dealing with system complexities.

3- Program Academic Reference Standards (ARS) (Annex 2)

Academic standards for master degree in Pathology

Assiut Faculty of Medicine developed master degree programs' academic standards for different academic specialties.

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program.

These standards were approved by the Faculty Council on 17-6-2009. These standards were revised and approved without changes by the Faculty Council on 23-9-2014.

These standards were recently revised and reapproved without changes by the Faculty Council on 27-11-2022.

4- Program External References (Benchmarks)

1. ACGME (Accreditation Council for Graduate Medical Education).

http://www.acgme.org/acWebsite/navPages/nav_Public.asp 2. West Virginia university residency program for Pathology http://www.hsc.wvu.edu/som/pathology/residency/

3- University of Alberta

www.ualberta.ca

4- Collage of American Pathologist (CAP)

5. Program Structure and Contents

A. Duration of program: 2-5 years

B. Structure of the program:

Total number of points: 180 (20 out of them for thesis) Didactic 32 (17.8%), practical 126 (70%) thesis 20 (11.1%) elective courses 2 (1.1) Total 180

First part

Didactic 8 CP (20%), practical in basic sciences 10 CP (25%), practical in speciality 20 CP (50%), elective course 2 CP (5%), total 40

Second part

Didactic 24(20%) practical 96 (80%). Total 120

According the credit points bylaws:

Total courses 160 CP Compulsory courses: 98.9% Elective course: 2 credit point: 1.1%

	Points	% from total
 Basic science courses 	18	10
Humanity and social courses	2	1.1%
 Speciality courses 	140	77.8
 Others (Computer,) 		
 Field training 	126	70%
Thesis	20	11.1%

C. Program Time Table

A. Duration of program 3 years maximally 5 years divided into

• Part 1: (One year)

Program-related basic science courses and ILOs + elective courses

Students are allowed to sit the exams of these courses after 12 months from applying to the M Sc degree.

One elective course can be set during either the 1st or 2nd parts.

o Thesis

For the M Sc thesis;

MSc thesis subject should be officially registered within 6 months from application to the MSc degree,

Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;

It should be discussed and accepted before passing the second part of examination)

• Part 2 (2 years)

Program – related speciality courses and ILOs

Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.

The students pass if they get 50% from the written exams and 60% from oral and clinical/practical exams of each course and 60% of summation of the written exams, oral and clinical/practical exams of each course

Total degrees 1900 marks.

700 marks for first part

1200 for second part

Written exam 40% - 70%.

Clinical/practical and oral exams 30% - 60%.

D. Currculum Structure: (Courses):

Courses of the program:

Modules/ Units delivering	Course	Core Credit points		its
courses and student work	Code	Didactics	training	total
load list				
First Part				
Basic science courses (8CP)	PAT202	8		8
1) Course 1:				
Histology				
Elective courses*		2CP		
Practical training and				
scientific activities				
A. Practical training in		1	0	10
compulsory academic Basic				
science courses (10 CP)				
B. Practical training in	PAT205	2	0	20
Speciality course (20 CP)				
Total of the first part		40		
Second Part		Speciality of	courses	
	Spe	eciality Clin	ical Work	
Speciality Courses	PAT205	2	4	24
2) Course 2				
Pathology				
Training and practical		96 9		96
activities in Pathology (96 CP)				
Total of the second part		24	96	120
Thesis	20			
Total of the degree		180		

Didactic (lectures, seminars, tutorial)

* Elective courses can be taken during either the $1^{\mbox{\scriptsize st}}$ or $2^{\mbox{\scriptsize nd}}$ parts.

Student work load calculation:

Work load hours are scheduled depending on the type of activities and targeted competences and skills in different courses

Elective Course#:

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education
- Quality assurance of clinical practice.
- Hospital management

One of the above mentioned courses are prerequisites for fulfillment of the degree.

Thesis:

20 CP are appointed to the completion and acceptance of the thesis.

Unit	Level	Credit points		
	(Year)			
		Didactic	Training	Total
Unit 1 General Pathology	2,3	3	-	3
Unit 2 :GIT and Liver pathology	2,3	3	15	18
Unit 3 Pathology of female genital organs and breast	2,3	3	15	18
Unit 4 Genitourinary Pathology	2,3	3	15	18
Unit 5 Head and Neck Pathology	2,3	2	10	12
Unit 6 Pathology of intrathoracic organs	2,3	2	10	12
Unit 7 Haematopoietic and lymphatic Pathology	2,3	1	5	6
Unit 8 Soft tissue and Bone Pathology	2,3	2	7	9
Unit 9 Neuropathology	2,3	1	5	6
Unit 10 Endocrine organs pathology	2,3	1	5	6
Unit 11 DermatoPathology	2,3	1	3	4
Unit 12	2,3	1	3	4
Cytology				
Unit 13	2,3	1	3	4
Immunohistochemisty				
Total		24	96	120

6. Courses Contents (Annex 1)

The competency based objectives for each course/module/rotation are specified in conjunction with teaching/training methods, requirements for achieving these objectives and assessment methods. <u>See Annex 1 for detailed specifications for each course/</u> <u>module</u> <u>Annex 6 II: Program Matrix</u>

7-Admission requirements

Admission Requirements (prerequisites) if any :

I. General Requirements:

- a. MBBCh Degree form any Egyptian Faculties of Medicine
- b. Equivalent Degree from medical schools abroad approved by the Ministry of Higher Education
- c. One year appointment within responsible department (for non Assiut University based registrars)

II. Specific Requirements:

- Fluent in English (study language)

VACATIONS AND STUDY LEAVE

The current departmental policy is to give working candidate 2 week leave prior to first/ second part exams

FEES:

As regulated by the postgraduate studies rules and approved by the faculty vice dean of post graduate studies and the faculty and university councils.

8-Progression and completion requirements

- Examinations of the first part could be set at 12 months from registering to the MSc degree.
- Examination of the second part cannot be set before 3 years from registering to the degree.
- Discussion of the MSc thesis could be set after 1 year from officially registering the MSc subject before setting the second part exams.
- **4** The minimum duration of the program is 3 years.

The students are offered the degree when:

1. Passing the exams of all basic science, elective and speciality courses of this program as regulated by the post graduates approved rules by the faculty council.

2. Completing all scheduled CP and log book (minimum 80%).

3. Discussion and acceptance of the MSc_thesis.

9- Program assessment methods and rules (Annex IV)

Method	ILOs measured
Written examinations:	K & I
Structured essay questions	
Objective questions	
MCQ	
Problem solving	
Clinical:	K ,I, P &G skills
Long/short cases	
OSCE	
Structured oral	K ,I &G skills
Logbook assessment	All
Research assignment	I &G skills

9-Program assessment methods and rules

Method	ILOs measured
Written examinations:	K & I
Structured essay questions	
Objective questions	
MCQ	
Problem solving	
Practical:	K ,I, P &G skills
OSPE	
Structured oral	K ,I &G skills
Logbook assessment	All
Research assignment	I &G skills

Weighting of assessments:

Courses		Degrees			
First Part	Course	Written	Oral	Practical	Total
	code	Exam	Exam	Exam	
Basic science courses:	PAT202	200	80	120	400
1- Histology					
	Second Pa	irt			
Speciality Courses:	Course	written	oral	Practical	Total
	code				
Pathology	PAT205	480	300	420	1200
Pathology 2					
Paper 1		120			
Paper 2		120			
Paper 3		120			
Paper 4		120			
Total of the degree					
Elective course		50	50		100

* 25% of the oral exam for assessment of logbook

Total degree 1600400marks for first part1200for second part

4 Examination system:

> First part:

• Written exam two papers 2 hours for each in Histology+ oral & Practical examination

> Second part:

Written exam four paper 3 hours for each in Pathology
 + oral & Practical examination

Elective courses

• Written exam one paper 1 hour in Elective course + Oral & Practical exam

10-Program evaluation

By whom	method	Sample
Quality Assurance	Reports	#
Unit	Field visits	
Internal evaluators	Report	1
External Evaluator	Reports	#
(s):According to	Field visits	
department council		
External Examiner (s):		
According to		
department council		
Stakeholders	Reports	#
	Field visits	
	Questionnaires	
Senior students	Questionnaires	#
Alumni	Questionnaires	#

#Annex 5 contains evaluation templates and reports (joined in the departmental folder)

11-Dec	laration
TT-DEC	ιαι ατι Οι Ι

We certify that all of the information required to deliver this program is contained in the above specification and will be implemented.

All course specifications for this program are in place.

Contributor	Name	Signature	Date
Program Principle	Dr Heba El-Deek		4/2022
Coordinator:	Mohammed		
Head of the Responsible	Prof Dr Dalia Elsers		4/2022
Department (Program			
Academic Director):			

Annex 1, Specifications for Courses / Modules

Course 1: Histology

Department of Pathology Faculty of Medicine Assiut University 2022-2023

1. Course data

- Course Title: Histology
- ∔ Course code: PAT202
- Speciality: Pathology
- **Wumber of credit points:** Didactic 8 (44.44%) practical 10(55.56%).total: 18
- **4** Department (s) responsible: Histology and cell biology

Faculty of Medicine- Assiut University

- Coordinator (s): Course coordinator: Prof. Dr Nermeen

Kamel

- Assistants coordinator (s) : Dr Heba El-Deek
- **4** Date last reviewed: 4/ 2022.
- **4** Admission Requirements:

Requirements from the students to achieve course ILOs are clarified in the joining log book.

2-Course Aims

1- To enable candidates to get sufficient Knowledge of the structure and function of the body and its major organ systems and of the different types of tissues as well as the molecular and cellular mechanisms.

2- Ensure students become proficient in the field of histopathology, and are competent to handle, prepare and are able to comment on a wide range of specimens.

3- Enable candidates to differentiate between different types of tissues and organs after examination by light microscope
4- Acquire life-long habits of reading, literature searches, and consultation with colleagues, attendance at scientific meetings,

and the presentation of scientific work that is essential for continuing professional development (CPD).

5- Enable candidates to work effectively, in partnership with other health professionals, support staff and service users.

3. Course intending learning outcomes (ILOs)

A. Knowledge and understanding

ILOs	Methods of	Methods of
	teaching/	Evaluation
	earning	
A- Describe the microscopic structure f	Didactic	- Spot
the following	(lectures,	diagnosis of
(1) Vascular and lymphoid	seminars,	different
(1) The structure of Arteries	tutorial)	types of
(2) Veins	- journal club,	tissues in
(3) Capillaries		the
(4) Sinusoids	- All students are	practical
Lymphatic vessels	allocated	exam
* The immune system	personal tutors	- Log book
Cytology and histophysiology of the	whose role is to	- Oral exam
cells of the immune system	assist them with	- Written
-Lymphocytes	personal	exam
- Plasma cells	problems and to	
- Macrophages	advise on	- The Course
(2)Lymphoid tissue	pastoral and	evaluation
* Diffuse lymphoid tissue	academic issues.	prepared by
* Lymphoid Nodules	are assigned a	the Course
* Lymphatic organs	member of the	Director and
Thymus – spleen – lymph node	Histology or	considered by
- Endocrine glands :	Cytology	the Course
* General characteristic features of the	academic staff to	Committee
endocrine gland	oversee progress	and the Assiut
* Hypophysis	and advise on the	College,
* Thyroid and parathyroid glands	project	Departmental
* Adrenal gland	dissertation.	Teaching
Skin :	Where practical,	Committee.
* Types of skin	students will be	MSc Staff –
* Skin Appendages	visited by	Student
Digestive system :	College staff	Committee,
* Oral cavity and associated glands	during their	held each

- Mucous membrane	project.	term, with
- Tongue – lip		report to
- Salivary glands		Departmental
* The general structure of the digestive		Teaching
tract		Committee
- the structure, function and		and the
modification		Divisional
* Oesophagus		Postgraduate
* Stomach (Cardiac, fundic and pyloric		Teaching
regions)		Committee
* The structure of small intestine		
*The structure of large intestine		
* Structure and histophysiology of the		
liver		
- gall bladder		
- pancreas		
Respiratory:		
The olfactory epithelium		
Nose and Para nasal sinuses		
- Histophsiology of the conducting		
portion of the respiratory tract		
(Trachea, bronchi – bronchioles)		
- Histology and histophysiology of the		
respiratory portion of the lung		
(Respiratory bronchioes, Alveolar		
ducts, alveoli)		
The urinary system :		
The histology structure of:		
- Uriniferous tubules		
- Structure and function of the		
nephron		
Histophysiology of the kidneys		
Renal pelvis and ureter		
Urinary bladder		
Male reproductive		
Female reproductive and breast		
CNS, Eye, ear		

A-Mention the following factual basics	Didactic	practical
and principles essential to the course	(lectures,	exam
topics in histologic structure and	seminars,	- Log book
physiology of the tissues mentioned	tutorial)	- Oral exam
above	- journal club,	- Written
		Exam
B-State update and evidence based		
Knowledge related to the course.		
C-Memorize the facts and principles of		
the other relevant basic and clinically		
supportive sciences related to the		
course topics:		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with conditions and diseases of relevance to Pathologist in clinical reasoning, diagnosis of different inflammatory and neoplastic conditions of the body system and range of normality	 Routine work: The most important learning experience will be day-to-day work. Trainees will be closely supervised during training. This close supervision allows for frequent short episodes of teaching. 	Logbook
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to conditions relevance to pathology		
C. Design and present audits, cases, seminars in common problems related to course topics.	Seminars and case presentation	Logbook

C. Practical skills

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
A- Perform the following basic lab skills	- Lecture	- log book
essential to the course	- seminar	- Objective
I- Basics of cell structures and organelles.	Differentiation	structure
II- Examination by LM, identification the	between different	-Check list
following organs and systems:	types of tissues by	on the
(1) Vascular system : arteries and veins	light microscope	different
3) Endocrine glands :	after staining by	item that
(4) Skin :	different types of	were
(5) Digestive system :	histochemical,	written in
(6)Respiratory system:	Immunohistoche-	the
(7) Male reproductive system	mical stains.	comment
(8) Female Reproductive and breast	-Identification	on different
(9) CNS, Eye, ear	and	stains and /
	Differentiation of	or tissues
	different tissues	
	after examination	
B. use instruments and devices in evaluation of	Observation	Logbook
slide examination of the previous structures	post graduate	_
	teaching	
C. Interpret the following non invasive/	Didactic	Logbook
procedures/ experiments	observation	
Tissue processing and staining		
D. Perform the following non invasive/	Observation post_graduate	LOGDOOK
Tissue processing: fixation staining, special	teaching	
stains	teaching	
F Write and evaluate of the following normal		
microscopic reports.		
F. Perform basic experiments in related basic		
sciences to be utilized in the research work.		

ILOs	Methods of	Methods of
	teaching/	Evaluation
	Learning	
A. Perform practice-based improvement	Different slides	-Written essays,
activities using a systematic	and photoes	dissertations, oral
methodology(audit, logbook)	Observation	presentation in
		seminars, team
	-Practical	working skills
	experimental	through
	and diagnostic	collaborative
	skills are	projects, students
	developed	representative
	through	work, social and
	laboratory and	cultural activities
	project work	- log book
		requirement
B. Appraises evidence from scientific	- Written & oral	Log book
studies.	communications	
C. participate in one audit or survey related	- Written & oral	Log book
to the course	communications	
D. Perform data management including data	Senior staff	Log book
entry and analysis.	experience	
E. Facilitate learning of junior students and	- Written & oral	Log book
other health care professionals.	communications	

D General Skills Practice-Based Learning and Improvement

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain ethically sound relationship with others.	Senior s experience	taff Logbook
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	Senior s ⁻ experience	taff Logbook
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.	Senior s [.] experience	taff Logbook
I. Work effectively with others as a member of a health care team or other professional group.	- Written & o communicatio	ral Logbook ons
J. Present a case in one of course topics	Seminars	Logbook
K. Write a report in description of normal structures	Written communication	Logbook
Professionalism	l	
ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Observation & supervision	team working skills through collaborative projects, students representative work, - log book requirement
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices	Observation & supervision	Log Book
O. Demonstrate sensitivity and responsiveness to others' culture, age, gender, and disabilities	Observation & supervision	Log Book

Systems Dusea I fuerce				
ILOs	Methods of	Methods of		
	teaching/	Evaluation		
	learning			
P. Work effectively in relevant health care delivery	1-structured	team working		
settings and systems.	practical	skills through		
	examination	collaborative		
	2.student	projects,		
	survey	students		
	3-socialand	representative		
	cultural	work,		
	activities	- log book		
	-logbook	requirement		
	requirement			
Q. Practice cost-effective health care and resource				
allocation that does not compromise quality of				
care.				
R. Assist patients in dealing with system				
complexities.				

Systems-Based Practice

4. Course contents (topic s/modules/rotation Course Matrix

Time Schedule: First Part

Торіс	Covered ILOs			
	Knowledge	Intellectual	Practical	General
			skill	Skills
Vascular system	A-E	A-C	A-F	A-P
Lymphatic				
- Endocrine glands	A-E	A-C	A-F	A-P
Skin	A-E	A-C	A-F	A-P
Digestive system	A-E	A-C	A-F	A-P
Rerspiratory	A-E	A-C	A-F	A-P
	A-E	A-C	A-F	A-P
The urinary system :				
Male and female reproductive	A-E	A-C	A-F	A-P
CNS eye, ear	A-E	A-C	A-F	A-P

5. Course Methods of teaching/learning:

- A. Routine work
- B. Lectures
- C. Multihead microscopic slides seminars...
- D. Scientific meetings
- E. text books
- F. Private study

6. Course Methods of teaching/learning: for students with poor achievements

- 1. Didactic (lectures, seminars, tutorial) according to their needs
- 2. training including multihead microscopic slide sessions.

7. Course assessment methods:

- i. Assessment tools: Log book evaluation Written exam Oral Exam Practical Exam
- ii. Time schedule: At the end of the first part
- iii. Marks: 400

8. List of references

i. Lectures notes

ii. Essential books

► KUMAR, V., COTRAN, R.S., and ROBBINS, S.L.

Robbins Basic Pathology. 10th ed. Saunders Publisher,2017.

Histology for Pathologists by Stacey E. Mills, 2007

iii. Recommended books

Rosai and Ackerman's Surgical Pathology Juan Rosai,

Mosby 2018

Sternberg's Diagnostic surgical Pathology ,

Lippincott Williams and Wilkins - 2021

iv. Periodicals, Web sites, ... etc

- Human pathology
- Histopathology
- American Journal of surgical pathology

Web sites

- http:// http://www.pathmax.com/
- http://www-

medlib.med.utah.edu/WebPath/LABS/LABMENU.html#2

- http://www.med.uiuc.edu/PathAtlasf/titlePage.html
- <u>http://www.medscape.com/pathologyhome</u>
- http://pathology2.jhu.edu/cytopath/masterclass/Homepa ge.htm
- <u>http://www.gotpath.com/</u>

9-Signatures

- Course Coordinator:	Head of the Department:
- Prof. Dr Nermeen Kamel	Prof Dr Dalia Elsers
Date: 4/2022	Date:4/2022.

Second Part

Course 2: Pathology

Department of Pathology Faculty of medicine Assiut University

2022-2023

1. Course data

- Course Title: Pathology
- Course code: PAT205
- Department (s) delivering the course : Department of pathology
- **4** Speciality: Pathology
- Date last reviewed: 4/2022
- Coordinators:

Principle course coordinator: Dr. Heba El-Deek Mohammed Assistant coordinator: Dr Noha Abdel- Raheem

N.B. Course coordinator to be assigned annually according to the approval of the pathology Department council (annual notification will be send over to QAU and vice-Dean of post graduate and research affairs).

</u> Admission Requirements (prerequisites)

Requirements from the students to achieve course ILOs are clarified in the joining log book.

2. Course Aims

- To be competent to function as specialist in surgical Pathology. This will require acquisition of a sufficient level of skill in the separate disciplines of Pathology, to serve as a consultant within the context of a regional or community hospital.
- Develop reasonable and complete differential diagnoses for surgical pathology cases based on the available clinical information, gross and microscopic features, and current published literatures and when to resort to special techniques.
- Describe the etiology, pathogenesis, structural and functional manifestations of diseases that affect body organs and to be able to place specific diseases in context with their prevalence, morbidity and mortality in society as a whole.
- Relate pathologic classification, staging and behavior of neoplasms to their response to treatment.
- Be able to draw essential conclusions from gross and microscopic findings and to write a final pathology report.

3. Intending learning outcomes (ILOs)

A. Knowledge and understanding

Unit (1): Pathologic basis of diseases (General Pathology)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Describe common conditions and	-Lectures	Written and oral
diseases related to General Pathology	-Books	examination
- Cellular adaptation cell injury and	-journals	Log book
cell death cell death - Acute and chronic inflammation	-Tutorials	
and repair	- Seminars	
- Infections		
-Heamodynamic disorders		
- Genetic disorders		
Neoplasia and tumors		
- Immunity		
- environmental and nutritional		
pathology		
-Diseases of infancy and childhood	-	
B. Mention the following factual	Didactic	Log book
basics and principles essential to		
the course topics.	-	
C. State update and evidence based	Didactic	Log book
Knowledge related to the course		
topics mentioned above.		
D. Memorize the facts and	Didactic	Log book
principles of the other relevant		
basic and clinically supportive		
sciences related to speciality		

including: microbiology, immunology, genetics	
 E. Mention the basic ethical and medicolegal principles relevant to the speciality. 	
F. Mention the basics of quality assurance to ensure good professional skills in his field.	
 G. Mention the ethical and scientific principles of medical research 	
Unit 2: Pathology of GIT and Liver

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A- Describe common clinical conditions and diseases related to Pathology of GIT and Liver -Principles of diseases of Esophagus: - details of tumors: benign tumors Malignant tumors: Stomach Congenital anomalies -Gastritis -Peptic ulcer -Gastric tumours Small and large Intestine	-Lectures -Books -journals -Tutorials - Seminars -Case study	Logbook Written, oral and practical examination
 -Inflammatory bowel disease (Crohns and ulcerative colitis) -Intestinal obstruction -Intestinal polyps -Tumors of the small and large intestine Appendix Anus and anal canal. Liver -Jaundice -Liver failure -Hepatitis -Cirrhosis -Metabolic disorders -Biliary obstruction -Tumors and tumor like conditions of the liver Peritoneum -principles of gall bladder and extrahepatic biliary tree diseases - principles of diseases of The pancreas 	Lectures -Books -journals -Tutorials - Seminars -Case study	

B. Mention the following factual basics and	Didactic	Oral	written
principles essential to course topics		exam	
C. State update and evidence based Knowledge	Didactic	Oral	written
related to course topics		exam	
D. Memorize the facts and principles of the other			
relevant basic and clinically supportive			
sciences related to speciality including: topics			
of the course			
E. Mention the basic ethical and medicolegal			
principles relevant to the pathologist.			
F. Mention the basics of quality assurance to			
ensure good professional skills in his field.			
G. Mention the ethical and scientific principles of			
medical research			
H. State the impact of common problems related	Didactic	Oral	written
to the field of Pathology on the society and how		exam	
good practice can improve these problems.			

Unit3: Pathology of female genital organs and breast

ILOs	Methods of teaching/	Methods of Evaluation
	Learning	
A- Describe common clinical conditions	-Lectures	LOG DOOK
formula ganital ergan and broast	-Books	whiten, I and
Principles of discoses of the vulve and	iournala	Ordi
Vagina	Journais	examination
Vagilla Sovuelly transmitted and other	-Tutorials	Loghook
Sexually transmitted and other	Cominara	LOG DOOK
mections. Condytoma. Cysts. Non-	- Seminars	(attenuance of
epithelial lesions. Paget's disease.	-Case study	lectures
Vagina.	Departmental	
Vaginitis and neoplasms.	teaching	Attendance of
Uterine Cervix.	sessions:	at least 60% of
Cervicitis. Polyps.	These occur	seminars and
Cervical squamous carcinoma.	on a regular	journal clubs
Cervical intra-epithelial neoplasia -	basis	
morphology.		
Invasive carcinoma - morphology, spread	Lectures	
and staging.		Checklist
Cytology screening programmes.		-log book –
Glandular neoplasia of the cervix.		Procedure/case
Details of diseases of Uterine corpus.	-Lectures	presentation
The normal endometrium and menstrual	-Books	
cycle. Endometritis, endometriosis,	DOOKS	
adenomyosis and endometrial	-journals	
hyperplasia. Iatrogenic changes in the	-Tutorials	
endometrium. Causes of dysfunctional		
uterine bleeding. Endometrial polyps.	- Seminars	
Endometrial carcinoma Endometrial	-Case study	
stromal sarcoma and mixed Mullerian		
tumour. Leiomyomas of the.	Departmental	

Leiomyosarcoma. Diseases of the	teaching	
Fallopian tubes. Pelvic inflammatory	sessions:	
disease.	These occur	
Ovaries.	on a regular	
Follicle development. Follicular, luteal	basis	
and other non-neoplastic cysts.	Lectures	
Polycystic ovary syndrome. Stromal	-Lectures	
hyperplasia and luteinization.	Books	Log book
Neoplasms: importance and	BOOKS	Written, I and
classification and types	-journals	oral
Fallopian tube	Tutorials	examination
Female Infertility.	-Tutonais	
Pathology of Pregnancy	- Seminars	
Placental inflammations and infections	Casa study	Attendance of
Pathology of the full term placenta.	-Case study	at least 60% of
Gestational trophoblastic disease -	Departmental	seminars and
hydatidiform mole, complete and partial,	teaching	journal clubs
invasive mole, choriocarcinoma.	sessions:	
Ectopic pregnancy.	These occur	Chick list
Details of Diseases of the Breast	on a regular	-log book &
Development and developmental	basis	portfolio
abnormalities.	Lectures	Procedure/case
Inflammatory conditions: infections,	-Books	presentation
duct ectasia, fat necrosis.	iournals	
Proliferative conditions: fibrocystic	Journais	Log book
change, terms, incidence, , including	-Tutorials	Written, I and
histological types.	Sominarc	oral
Significance of proliferative lesions,		examination
especially atypical hyperplasia.	-Case study	Log book
Benign neoplasms:	Dopartmontal	(attendance of
Breast carcinoma	tooching	at least 60% of
In-situ and invasive carcinoma.	teaching	lectures
Paget's disease of the nipple. Spread of		Attendance of
breast carcinoma. Prognostic factors		at least 60% of
Diseases of the male breast -		seminars and
	Ng212	

gynaecomastia and carcinoma.	Lectures	journal clubs
B. Mention the following factual	Didactic	Log book
basics and principles essential		Written, and
topics of the course		oral
		examination
C. State update and evidence based	Didactic	Log book
Knowledge related to the course:		Written, and
		oral
		examination
D. Memorize the facts and principles	Didactic	Log book
of the other relevant basic and		Written, I and
clinically supportive sciences		oral
related to speciality including:		examination
E. Mention the basic ethical and	Didactic	Log book
medicolegal principles relevant to		Written, I and
the pathology		oral
		examination
F. Mention the basics of quality		
assurance to ensure good		
professional skills in his field.		
G. Mention the ethical and scientific	Didactic	Log book
principles of medical research		Written, I and
		oral
		examination
H. State the impact of common	Didactic	Log book
problems related to the field of speciality		
can improve these problems		

Unit4: Genitourinary pathology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
 A- Describe common clinical conditions and diseases related to Genitourinary pathology Kidneys. Clinical manifestations of renal disease. The pathology of renal failure. Glomerular diseases - Renal infarction. transplantation. Tubulo-interstitial diseases. Acute pyelonephritis - Chronic pyelonephritis: Renal tuberculosis. Acute tubular necrosis. Interstitial nephritis. Analgesic nephropathy. Congenital and 	-Lectures -Books -journals -Tutorials - Seminars -Case study Departmental teaching sessions: These occur on a regular basis	Log book Written, and oral examination Log book (attendance of at least 60% of lectures Attendance of at least 60% of seminars and
cystic disease of the kidney. Renal stones:	Lectures	journal clubs Check list -log book & portfolio
Bladder & ureters. Inflammation, obstruction, calculi and congenital lesions.		Procedure/case presentation
Neoplasms of the bladder and ureter	Lectures	
Prostate Gland. Prostatitis:		
Prostate carcinoma		
Testis. Cryptorchidisim, hydrocoele, haematocoele, torsion and orchitis.		

Neoplasms of the testis.		
Epididymis.		
Cysts, spermatocoele, epididymo - orchitis.		
Penis and Scrotum.		
Congenital anomalies, inflammations including sexually transmitted diseases, venereal warts, carcinoma of the penis and scrotum. Causes of male infertility.		
B. Mention the following factual basics and principles essential to the course topics.	Didactic	Logbook
C. State update and evidence based Knowledge related to the course topics	Didactic	Logbook
D. Memorize the facts and principles of the other relevant basic and clinically supportive sciences related to speciality including: diseases and tumors of the urinary and male genital system	Didactic	Log book Written, and oral examination
E. Mention the basic ethical and medicolegal principles relevant to the pathology	Didactic	Log book
F. Mention the basics of quality assurance to ensure good professional skills in his field.	Didactic	Log book Written, and oral examination
G. Mention the ethical and scientific principles of medical research	Didactic	Log book
H. State the impact of common problems related to the field of Pathology on the society and how good practice can improve these problems.	Didactic	Log book

Unit5: Head and neck pathology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A- Describe common conditions and diseases related Head and neck Pathology	-Lectures -Books -Tutorials	Log book Written, I and oral examination
-Diseases of the Jaw and oral cavity	- Seminars -Case study	Log book (attendance of at least 60% of
 Tumors of the jaw and oral cavity classification, subtypes and differential diagnosis 	Departmental teaching sessions: These occur	lectures Attendance of at least
- Diseases of salivary glands	on a regular basis	journal clubs
- Tumors of salivary glands		
classification, subtypes and differential diagnosis	Lectures	Chick list -log book & portfolio
 Diseases of Nose, paranasal sinuses and nasopharynx 		-Procedure/case presentation
 Tumors of the noses, paranasal sinuses and nasopharynx 		
-Diseases of the larynx		
-Tumors of the larynx		
Principles of :		
- Diseases of the ear		
- Tumors of the ear		

- Diseases of the Eye and occular adenexa		
 tumors of the Eye and occular adenexa 		
 B. Mention the following factual basics and principles essential to the course Topics as inflammatory and neoplastic lesions of head and neck region 	Didactic	log book & portfolio -Procedure/case presentation
C. State update and evidence based Knowledge related to the course topics	Didactic	log book & portfolio -Procedure/case presentation
D. Memorize the facts and principles of the other relevant basic and clinically supportive sciences related to diseases and tumors of head and neck (anatomical structure)	Didactic	log book & portfolio -Procedure/case presentation
E. Mention the basic ethical and medicolegal principles relevant to the speciality.	Senior Staff experience	log book
F. Mention the basics of quality assurance to ensure good professional skills in his field.	Senior Staff experience	Log book
G. Mention the ethical and scientific principles of medical research	Senior Staff experience Journal clubs	Log book
 H. State the impact of common problems related to the field of Pathology on the society and how good practice can improve these problems. 	Senior Staff experience Seminars Tutorials	Log book

Cinto. I athology of intrathoracte organs			
ILOs	Methods of teaching/ Learning	Methods of Evaluation	
A. Describe common clinical conditions	-Lectures	Log book	
and diseases related to Pathology of intrathoracic organs	-Books	Written, and oral	
Principles of pulmonary diseases	-journals	examination	
 Nonneoplastic pulmonary diseases Pulmonary infections 	-Tutorials		
 Lung abscess. Pulmonary 	- Seminars		
tuberculosis. Restrictive lung diseases and acute	-Case study		
interstitial lung disease (and chronic interstitial lung disease (Departmental teaching		
Obstructive pulmonary disease:	sessions:		
Emphysema, chronic obstructive	These occur		
pulmonary diseases (COPD).	on a regular		
Bronchiectasis:	basis		
Collapse of the lung tissue (atelectasis):			
resorption, Vascular disorders of the lung:			
Neoplasms of the lung: bronchiogenic		Log book	
carcinoma	-Lectures	Written, I and	
Other primary neoplasms, benign and malignant.	-Books	oral examination	
Metastatic lung tumours.	-journals		
Diseases of the pleura: pleurisy.	,		
effusions, fibrosis, pleural plagues,	-Tutorials		
neoplasms.	- Seminars		
- Principles of diseases of The Mediastinum: tyymus and thymoma	-Case study		
-Principles of diseases of the heart and the blood vessels	Departmental teaching		

Cardiac failure:.	sessions:	
Ischaemic heart disease:	These occur	
Hypertension:	on a regular	
Valvular disease:	basis	
Infective endocarditis.		
Primary myocardial disease		
Pericardial disease:		
Tumours of the heart.		
Congenital heart disease		
Vascular diseases (other than		
atherosclerosis): aneurysms,		
Vasculitis.		
Tumours and tumour-like lesions of		
vessels		
B. Mention the following factual basics	Didactic	Logbook
and principles essential to the course:		Written and
diseases and tumors of intrathoracic		oral exam
organs.		
C. State update and evidence based	Didactic	Logbook
Knowledge related to the course:		Written and
topics mentioned above		oral exam
D. Memorize the facts and principles of	Didactic	Logbook
the other relevant basic and clinically		Written and
supportive sciences related to		oral exam
speciality including:		
anatomical relations		
E. Mention the basic ethical and	Didactic	Logbook
medicolegal principles relevant to the		Written and
pathology		oral exam
F. Mention the basics of quality	Didactic	Logbook
assurance to ensure good		Written and
professional skills in his field.		oral exam
G. Mention the ethical and scientific	Didactic	Logbook
principles of medical research		Written and
		oral exam

Unit 7: Pathology of haematopoitic and lymphoid organs

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A- Describe common clinical conditions	-Lectures	Log book
related to Pathology of haematopoitic and lymphoid organs	-Books	Written, and oral
Lymph Node	-journals	examination
Lymphomas.	-Tutorials	Attendance of at least 60% of
- Hodgkin's disease - classification and	- Seminars	seminars and
morphology. Clinical features, staging and survival.	-Case study	journal clubs
 Non Hodgkin's lymph, including - classification, morphology, molecular pathology and prognostic factors- extranodal lymphomas. Non-specific reactive hyperplasia :The functional anatomy of lymph nodes Morphology and causes of follicular hyperplasia, paracortical hyperplasia and sinus histiocytosis. Lymphadenitis, non- specific and specific forms. 	Departmental teaching sessions: These occur on a regular basis	Checklist -log book & portfolio Procedure/case presentation
Spleen: principles of		
Causes of spienomegaly. Hyperspienism		
B. Mention the following factual basics and principles essential pathology	Didactic	Log book Written, and oral examination
C. State update and evidence based	Didactic	Log book

Knowledge related to the course:		Written, and oral examination
D. Memorize the facts and principles of the other relevant basic and clinically supportive sciences related to speciality	Didactic	Log book Written, and oral examination
 E. Mention the basic ethical and medicolegal principles relevant to the pathology 		
F. Mention the basics of quality assurance to ensure good professional skills in his field.		
G. Mention the ethical and scientific principles of medical research	Didactic	Log book Written, and oral examination
H. State the impact of common problems related to the field of speciality on the society and how good practice can improve these problems.	Didactic	Log book Written, and oral examination

Unit 8: Soft tissue and bone pathology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
 A-Describe common clinical conditions and diseases related to histology of soft tissue and bone Nonneoplastic disorders and tumor like conditions of the soft tissue Soft tissue tumors classification, types and differential diagnosis Nonneoplastic diseases of bone Bone tumors Tumors of the muscles And principles of Disease of the joints and Diseases of muscles 	-Lectures -Books -journals -Tutorials - Seminars -Case study Departmental teaching sessions: These occur on a regular basis	Log book Written, and oral exam Attendance of at least 60% of seminars and journal clubs Checklist -log book & portfolio Procedure/case presentation
B. Mention the following factual basics and principles essential to pathology	Didactic	Log book Written, and oral examination
C. Mention the basics of quality assurance to ensure good professional skills in his field.		
D. Mention the ethical and scientific principles of medical research		
E. Memorize the facts and principles of the other relevant basic and clinically supportive sciences related to speciality		
F. Mention the basic ethical and medicolegal principles relevant to the pathology		
G Mention the basics of quality assurance to ensure good professional skills in his field.		

Unit 9 Neuropathology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A- Describe common clinical conditions and diseases related to Neuropathology principles of diseases of brain tissue Intracranial space-occupying lesions - Cerebrovascular disease,Strokes Infections. Parkinson's disease Neoplasms: classification. Clinicopathological features. Characteristics of the various types Peripheral nervous system: reaction to injuries, neuropathies and neoplasms.	-Lectures -Books -journals -Tutorials - Seminars -Case study Departmental teaching sessions:	Log book Written, practical and oral examination
B. Mention the following factual basics and principles essential topics of the course	Didactic	Log book Written, and oral examination
C. State update and evidence based Knowledge related to the course:	Didactic	Log book Written, and oral examination
D. Memorize the facts and principles of the other relevant basic and clinically supportive sciences related to speciality including:	Didactic	Log book Written, l and oral examination
E. Mention the basic ethical and medicolegal principles revenant to the pathology	Didactic	Log book Written, I and oral examination
F. Mention the basic ethical and medicolegal principles relevant to the	Didactic	Log book Written, and oral examination
G- Mention the ethical and scientific principles of medical research	Didactic Senior staff experience	Oral written exam

Unit 10: Endocrine pathology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
 A- Describe common clinical conditions and diseases related to: Thyroid Hyperthyroidism. Systemic effects of thyrotoxicosis. Grave's disease - functioning adenoma and toxic nodular goitre. Hypothryoidism. Hashimotos's thyroiditis Goitre. Neoplasms. Adenoma. Carcinomas - classification, pathogenesis including Lymphoma of the thyroid. Parathyroids. Primary hyperparathyroidism: Secondary hyperparathyroidism. Hypoparathyroidism: Adrenals Pituitary. The Endocrine Pancreas. Diabetes mellitus Islet cell tumours. 	-Lectures -Books -journals -Tutorials - Seminars -Case study Departmental teaching sessions: - Routine work:	Log book Written, practical and oral examination Log book Written, practical and oral examination
B- Mention the following factual basics and principles essential to course topics	Didactic	Log book Written, and oral examination
C- Mention the basic ethical and medicolegal principles revenant to the course.	Didactic	Log book Written, and oral examination
D- Mention the basics of quality assurance to ensure good		

professional skills in his field.				
E- Mention the ethical and scientific	Didactic		Log bool	K
principles of medical research			Written,	and
			oral exa	mination
F. Mention the basic ethical and			Log bool	ĸ
medicolegal principles relevant to the			Written,	and
	Didactic		oral exa	mination
G- Mention the ethical and scientific	Didactic		Oral	written
principles of medical research	Senior	staff	exam	
	experience			
H. State the impact of common	Didactic		Oral	written
problems related to the field of speciality			exam	
on the society and how good practice				
can improve these problems.				

Unit 11: Dermatopathology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
 A- Describe common clinical conditions and diseases related to Dermatopathology Principles of The vocabulary of skin diseases: clinical and histological terms. Principles of skin biopsy. Acute inflammatory dermatoses: urticaria, dermatititis and erythema multiforme. Chronic inflammatory dermatoses: psoriasis and lichen planus. Bullous diseases: pemphigus, bullous pemphigoid and dermatitis herpetiformis. Eczema, psoriasis and lichenoid eruptions; Common benign epithelial tumours. Squamous and basal cell carcinoma epidermal tumours; soft tissue tumours; cutaneous lymphoma; granulomatous and infectious diseases; appendageal tumours/BCCs. Naevi and dysplastic naevi. Malignant melanoma - environmental and genetic aetiological factors, morphology, staging, spread and clinical features. 	Learning -Lectures -Books -journals -Tutorials - Seminars -Case study Departmental teaching sessions: These occur on a regular basis	Log book Written, practical and oral examination
A. Mention the following factual	DIGACTIC	год роок

basics and principles essential to the course			Written, and oral examination	
 B. Mention the basic ethical and medicolegal principles revenant to the course topics 	Didactic		Log book Written, and oral examination	
C. Mention the basics of quality assurance to ensure good professional skills in his field.				
D. Mention the ethical and scientific principles of medical research	Didactic		Log boo Written oral examina	k , and ation
E. Mention the basic ethical and medicolegal principles relevant to the	Didactic		Log boo Written oral examina	k , and ation
G- Mention the ethical and scientific principles of medical research	Didactic Senior experienc	staff e	Oral exam	written

Unit 12: Cytopathology		
ILOs	Methods of teaching/ Learning	Methods of Evaluation
 A- Describe common clinical conditions and diseases related to Cytopathology Principles of smear-taking technique. -Technical aspects of spreading and fixing a smear -Basic knowledge of preparation and staining techniques for common specimen types. Knowledge of use of special techniques, e.g. immunocytochemistry. Diagnosis Features of malignancy in sites commonly investigated with cytopathology. -Features of specific non-malignant Diagnoses, e.g. infection. 	-Lectures -Books -journals -Tutorials - Seminars -Case study Departmental teaching sessions: These occur on a regular basis	Log book Written, practical and oral examination
B. Mention the following factual basics and principles essential to Pathology	Didactic	Log book Written, and oral examination
C. Mention the basic ethical and medicolegal principles revenant to the course topics	Didactic	Log book Written, and oral examination
D. Mention the basics of quality assurance to ensure good professional skills in his field.		
E. Mention the ethical and scientific principles of medical research	Didactic	Log book Written, and oral examination
F. Mention the basic ethical and medicolegal principles relevant to the		
G- Mention the ethical and scientific principles of medical research		
H. State the impact of common problems related to the field of speciality on the society and how good practice can improve these problems.	Didactic	Oral written exam

Unit 13: Immunohistochemistry

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A- Describe common clinical conditions	-Lectures	Log book
and diseases related to Immunohistochemistry	-Books	Written, practical and
Principles of	-journals	oral
1-The basics of preparation and staining techniques for common specimen types	-Tutorials	examination
2. The principles of	- Seminars	
immunohistochemical methods and the principles of common molecular	-Case study	
pathology techniques and when to resort to them.	Departmental teaching	
3. The panels of antibodies for particular	sessions:	
diagnostic applications	These occur	
4. The pitfalls in diagnosis & limitations	on a regular	
	basis	
B- Mention the following factual basics and principles essential to course topics	Didactic	Log book Written, and oral examination
C- Mention the basic ethical and medicolegal principles relevant to the course.		
D- Mention the basics of quality assurance to ensure good		
professional skills in his field.		
E- Mention the ethical and scientific principles of medical research		

B-Intellectual outcomes for the whole course

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Correlates the facts of relevant basic and clinically supportive sciences with conditions and diseases appropriate to Pathology in clinical reasoning, diagnosis and management of various diseases and tumors as ability to generate a differential diagnosis, explain clinical-pathologic correlations, and evaluate scientific and clinical laboratory data. B-Demonstrate an investigatory and analytic thinking (problem solving) approaches to conditions relevance to course topics	Senior staff experience Departmental teaching sessions:	logbook
C-Design and present audits, cases, seminars in common problems related to pathology	Seminars Case presentation	logbook
D. Formulate management plans and alternative decisions in different situations in the field of the Pathology.	Seminars Case presentation	logbook

C. Practical skills for the whole course

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
A. Perform the following basic lab skills	supervision	Log book
essential to the course:	Written & oral	Practical
- possessing Sufficient manual dexterity to	communication.	and oral
perform dissection safely and accurately,	Discussions in	examination
without damage to tissues.	seminars	
- Principles of specimen dissection,	Scientific	
macroscopic description and block selection in	meetings	
neoplastic and nonneoplastic disease.	participate in	
- Principles of dissection of all major cancer	seminars	
resection specimens		
- Special techniques.		
-Recognizing histological features of	Routine work: The	
histochemical and immunohisto-chemical	most important	
stains in normal and diseased tissues	learning	
- Preparation and staining techniques for	experience will be	
common specimen types	day-to-day work.	
- Correct specimen orientation.	Trainees will be	
- Open fresh specimen.	closely supervised	
- Obtaining fresh tissue for touch preparation,	during training.	
freezing, electron microscopy etc.	This close	
- Inking of excision margins.	supervision allows	
- Lymph node anatomy and dissection in	for frequent short	
cancer specimens.	episodes of	
Ablilty to describe and take appropriate	teaching.	
blocks from:		
-Mastectomy.		
-Wide local excision for macroscopic		
tumour.		
-Axillary lymph node dissection		
-Radical oesophagectomy.		

-Radical gastrectomy.		
-Antrectomy		
 -Colectomy/proctectomy for cancer or 		
inflammatory bowel disease.		
- Appendicectomy.	Routine work: The	
-Polypectomy	most important	
- Open biopsy of lung.	learning	
Pneumonectomy or lobectomy.	experience will be	
Appropriate handling of orientated or	day-to-day work.	
complex skin specimens.	Trainees will be	
Lymph node for neoplastic and nonneoplastic	closely supervised	
disease.	during training.	
Taking tissue for supplementary	This close	
techniques (e.g. flow cytometry.(supervision allows	
Mucosal biopsy.	for frequent short	
Tonsillectomy.	episodes of	
Nasal polypectomy.	teaching.	
Salivary gland tumour.		
Hysterectomy and/or salpingooophorectomy		
for malignant or benign		
disease.		
Cervical loop/ cone biopsy		
Open biopsy of liver.		
Resections for metastatic tumour.		
Cholecystectomy		
Vas deferens.		
Prostate biopsies and chippings.		
Orchidectomy and prostatectomy		
specimens.		
Thyroidectomy.		
Parathyroidectomy		
Soft tissue tumour resection, simple (i.e.		
lumpectomy.(
Neurosurgical tumour resection and biopsy		
specimens.		

Renal biopsies.		
Bladder biopsies.		
Nephrectomy specimens		
Handling a trephine bone-biopsy.		
Use of calcified versus de-calcified		
Section		
B. Use instruments and devices in evaluation	Routine work: The	Log book
of	most important	Practical
- Setting up a microscope with ergonomic	learning	and oral
safety and operate it effectively.	experience will be	examination
- Digital camera and photography	day-to-day work.	
 The use of departmental protocols for the handling; of specimens including identification, documentation, entering patient data on to computer and measures to prevent specimen mix-ups. Training in the Laboratory aspects of the Fixation preparation, cutting and staining of histological sections Gross dissection, cutting and block selection of all human resection 	Trainees will be closely supervised during training. This close supervision allows for frequent short episodes of teaching.	
specimens		
invasive/invasive following frocedures/ experiments		
- Correct interpretation of pathological		
features in the context of available clinical		
information and other laboratory findings.		
- Data from molecular analyses in the context		
or the clinical situation and morphological		
appearances when undertaking diagnostic		
Surgical pathology		
molecular tests as clinically required		
- Developing the practice of integrating		
 Developing the practice of integrating 		

clinical, radiological and pathological data in		
D Derform the fellowing	Douting work. The	Loghaol
D. Perform the following non	Routine work: The	LUG DUOK
Invasive/invasive procedures/ experiments	most important	Practical
I raining in the Laboratory aspects of the	learning	and oral
Fixation preparation, cutting and staining of	experience will be	examination
histological sections	day-to-day work.	
- Gross dissection, cutting and block	Trainees will be	
selection of all human resection	closely supervised	
specimens	during training.	
- microscopic examination of various	This close	
neoplastic and non neoplastic conditions	supervision allows	
in different organs	for frequent short	
 Recognizing and accurately diagnose a 	episodes of	
broad range of common inflammatory	teaching.	
and neoplastic conditions on both		
histological and cytological material .		
- Providing appropriate strategies for		
biopsy (histological and cytological),		
tissue handling, and reporting to include		
the features of prognostic and		
therapeutic importance.		
E. Write and evaluate competently all forms	Senior staff	Log book
of professional reports related to pathology as	experience	Practical
 Final gross and microscopic 	-Cases	and oral
report with suitable summaries	presentation	examination
 Creating a final report that incorporates 	participate in	
both morphological and	cases multi-	
molecular data where appropriate	header	
 Report means producing data for cancer 	microscope	
report with staging data	seminars	
F. Perform the following basic experiments in	Senior staff	Log book
related basic sciences to be utilized in the	experience	Practical
research work:	-Cases	and oral
- Routine tissue processing: fixation and	presentation	examination

staining.	participate	in	
	cases	multi-	
	header		
	microscope		
	seminars		
G. Use information technology to support	-Cases		Log book
decisions in common situations related to	presentatio	า	Practical
pathology	participate	in	and oral
	cases	multi-	examination
	header		
	microscope		
	seminars		
H. Develop and carry out plans for performing	participate	in	Log book
experiments related to Pathologic diagnosis	cases	multi-	Practical
	header		and oral
	microscope		examination
	seminars		
I. Counsel and educate students, technicians	participate	in	Log book
and junior staff, in the lab about conditions	cases	multi-	Practical
related to Pathology including handling of	header		examination
samples, devices, safety and maintenance of	microscope		
laboratory equipments.	seminars		
J. Share in providing health care services	Senior	staff	Log book
aimed solving health problems and better	experience		
understanding of the normal structure and	seminars		
function.			

D. General Skills for the whole course

Fractice-Daseu Learning an	a mprovement	
ILOs	Methods of teaching/	Methods of Evaluation
	Learning	
A. Perform practice-based improvement	Log book and	Log book
activities using a systematic	supervision	
methodology(audit, logbook): Sample	Written & oral	Portfolios
processing, microscopic examination,	communication	Procedure/case
	Journal clubs	presentation
B. Appraises evidence from scientific studies:	Discussions in	
Researches and evidence based practice and	seminars	
internet updates.	Scientific	
	meetings	
C. Participate in one audit or survey related		
to the course		
D. Perform data management including data		
entry and analysis.		
E. Facilitate learning of junior students and		
other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
F. Maintain ethically sound relationship with others.	Observation	Simulation
	&	Record
	supervision	review
		(report
G. Elicit information using effective nonverbal,		
explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal,		
explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a		
health care team or other professional group.		
J. Present a case in seminars and scientific meetings		
K. Write a report in gross, microscopic		
immunohistochemical and final diagnostic report		

ILOs	Methods of teaching/	Methods of Evaluation
	learning	
L Demonstrate respect, compassion, and	Observation	Objective
integrity; a responsiveness to the needs of	&	structured
patients and society	supervision	practical
	Educational	examination
	prescription	2.Student
		survey
M. Demonstrate a commitment to ethical	Didactic	
principles including provision or withholding of	(lectures,	
clinical care, confidentiality of patient	seminars,	
information, informed consent, business	tutorial	
practices		
N. Demonstrate sensitivity and responsiveness to		
others' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of	Methods of
	teaching/	Evaluation
	learning	
O. Work effectively in relevant health care	Observation &	1-student
delivery settings and systems.	supervision	survey
	Didactic	2.portfolios
	Didactic	
	(lectures,	
	seminars,	
	tutorial	
	Educational	
	prescription	
P. Practice cost-effective health care and		
resource allocation that does not		
compromise quality of care.		
Q Assist patients in dealing with system		
complexities.		

4. Course contents (topic s/modules/rotation Course Matrix

Time Schedule: Second part

Торіс	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Unit 1: General Pathology	A-G	A-D	A-J	A-P
Unit 2: Pathology of GIT and	A-H	A-D	A-J	A-Q
Liver				
Unit 3	A-H	A-D	A-J	A-Q
Pathology of female genital				
organs and breast				
Unit 4: Genitourinary	A-H	A-D	A-J	A-Q
pathology				
Unit 5: Head and neck	A-H	A-D	A-J	A-Q
pathology				
Unit 6: Pathology of	A-G	A-D	A-J	A-Q
intrathoracic organs				
Unit 7: Pathology of	A-H	A-D	A-J	A-Q
haematopoietic and				
lymphoid organs				
Unit 8: Soft tissue and Bone	A-G	A-D	A-J	A-Q
Pathology				
Unit 9: Neuropathology	A-G	A-D	A-J	A-Q
Unit 10: Endocrine organs	A-H	A-D	A-J	A-Q
pathology				
Unit 11: Dermatopathology	A-G	A-D	A-J	A-Q
Unit 12: CytoPathology	A-H	A-D	A-J	A-Q
Unit 13:	A-E	A-D	A-J	A-Q
Immunohistochemisty				

5. Course Methods of teaching/learning:

- 1. Lectures
- 2. Course notes
- 3. Multihead microscopic slide seminars
- 4. Scientific meetings...
- 5. Private study

6. Course Methods of teaching/learning: for students with poor achievements

- 1. Extra Didactic (lectures, seminars, tutorial) according to their needs
- 2. Extra training according to their needs

7. Course assessment methods:

i. Assessment tools: ...log book

- written, oral , practical examination and log book
- Examination MCQ A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
- Examination Oral Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
- ii. Time schedule: At the end of second part iii. Marks 1200

8. List of references

i. Lectures notes

ii. Essential books

KUMAR, V., COTRAN, R.S., and ROBBINS, S.L. Robbins Basic Pathology. 10th ed. Saunders Publisher (2017)

iii. Recommended books

- Rosai and Ackerman's Surgical Pathology Juan Rosai, Mosby 2018
- Sternberg's Diagnostic surgical Pathology, Lippincott Williams and Wilkins 2021

iv. Periodicals, Web sites, ... etc

- Human pathology
- Histopathology
- American Journal of surgical pathology

Web sites

- http:// http://www.pathmax.com/
- http://wwwmedlib.med.utah.edu/WebPath/LABS/LABMENU.html#2
- http://www.med.uiuc.edu/PathAtlasf/titlePage.html
- http://www.medscape.com/pathologyhome
- http://pathology2.jhu.edu/cytopath/masterclass/Homepa ge.htm
- http://www.gotpath.com/

9. Signatures

Course Coordinator:	Head of the Department:
Dr. Heba El-Deek Mohammed	Prof Dr Dalia Elsers
Date: 4/2022	Date: 4/2022.

ANNEX 2 Program Academic Reference Standards (ARS)

1- Graduate attributes for basic master degree

The Graduate (after residence training and master degree years of study) must:

 Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and medical audit in the chosen field of Pathology.
 Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related

Pathology.

3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of Pathology.

4- Dealing with common problems and health promotion using updated information in the field of Pathology.

5- Identify and share to solve health problems in his Pathology.

6- Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical care including update use of new technology in the Pathology field.

7- Demonstrate interpersonal and communication skills that ensure effective information exchange with other health professions, the scientific community, junior students and the public.

8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.

9- Acquire decision making capabilities in different situations related to his field of practice.

10- Show responsiveness to the larger context of the related health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.

11- Be aware of public health and health policy issues and share in system-based improvement of his practice and related health care.

12- Show appropriate attitudes and professionalism.

13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in the Pathology or one of its subspecialties.

2- Competency based Standards for basic master degree graduates

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related to the Pathology.

2-1-B- The relation between practice in the Pathology and the welfare of society.

2-1-C- Up to date and recent developments in common problems related to the field of Pathology.

2-1-D- Ethical and medicolegal principles relevant to practice in the Pathology field.

2-1-E -Quality assurance principles related to the good medical practice in the Pathology field.

2-1-F- Ethical and scientific basics of medical research.

2.2- Intellectual skills:

By the end of the program, the graduate should be able to demonstrate the following:

2-2-A- Correlation of different relevant sciences in the problem solving and management of common problems of the Pathology.

2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common situations related to Pathology.

2.2- C- Demonstrating systematic approach in studding common themes or problems relevant to the Pathology field.

2-2-D- Making alternative decisions in different situations in the field of Pathology.
2.3-Practical skills/clinical skills

By the end of the program, the graduate should be able to

2-3-A - Provide practical and or laboratory services that can help patient care, solving health problems and better understanding of the normal structure and function.

2-3-B- Demonstrate practical / laboratory skills relevant to that

Pathology.

2-3- C- Write and comment on reports for situations related to

the field of Pathology.

2.4- General skills

By the end of the program, the graduate should be able to Competency-based outcomes for practice-based learning and improvement

2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own practice, appraisal and assimilation of scientific evidence, improvements in provided services and risk management.

2-4-B- Use all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

Competency-based objectives for interpersonal and communication Skills

2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, lab technical staff and other health professionals.

Competency-based objectives for Professionalism

2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Competency-based objectives for Systems-based Practice

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and academic services and the ability to effectively use system resources to provide care that is of optimal value.

2-4-G- Demonstrate skills of effective time management.

2-4-H- Demonstrate skills of self and continuous learning.

Annex 3, Methods of teaching/learning

Annex 3, Methods of teaching/learning

	Patient care	Medical knowledge	Practice- based learning/ Improveme nt	Interpersonal and communicati on skills	Professionalis m	Systems- based practice
Didactic (lectures, seminars, tutorial)	Х	Х		X	Х	Х
journal club,	Х	Х	Х			
Educational prescription	Х	Х	Х	Х	Х	Х
Present a case (true or simulated) in a grand round	Х	Х	X	X	X	
Observation and supervision	Х		Х	Х	Х	Х
conferences		Х	Х	Х		Х
Written assignments	Х	X	Х	Х	Х	Х
Oral assignments	Х	Х	Х	X	Х	X

Teaching methods for knowledge

- Didactic (lectures, seminars, tutorial)
- ✤ journal club
- Critically appraised topic
- Educational prescription (a structured technique for following up on clinical questions that arise during rounds and other venues).
- Present a case (true or simulated) in a grand round
- Others

Teaching methods for patient care

- Observation and supervision /Completed tasks procedure/case logs
- On-the-job" training without structured teaching is not sufficient for this skill (checklists).
- Simulation is increasingly used as an effective method for skill/ teamwork training.

Teaching methods for other skills

- Written communication (e.g., orders, progress note, transfer note, discharge summary, operative reports, and diagnostic reports).
- Oral communication (e.g., presentations, transfer of care, interactions with patients, families, colleagues, members of the health care team) and/or non verbal skills (e.g., listening, team skills)
- Professionalism, including medical ethics, may be included as a theme throughout the program curriculum that includes both didactic and experiential components (e.g., may be integrated into already existing small group discussions of vignettes or case studies and role plays, computer-based modules) and may be modeled by the faculty in clinical practice and discussed with the resident as issues arise during their clinical practice.

Annex 4, Assessment methods

Annex 4, competency evaluation methods for residency training.

	Patient care	Medical knowledge	Practice- based learning/ Improveme nt	Interpersonal and communicati on skills	Professionalis m	Systems- based practice
Record review	Х	х		X	Х	Х
Checklist	Х			Х		
Global rating	Х	Х	Х	Х	Х	Х
Simulations	Х	Х	Х	Х	Х	
Portfolios	Х	Х	Х	Х		
Standardized oral examination	Х	Х		Х		Х
Written examination	Х	Х				Х
Procedure/ case log	Х	Х				

Annex 4, Glossary of Master Degree doctors assessment <u>methods</u>

- Record Review Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.
- Chart Stimulated Recall Uses the MSc doctor's patient records in an oral examination to assess clinical decisionmaking.
- Mini clinical evaluation: Evaluation of Live/Recorded Performance (single event) – A single resident interaction with a patient is evaluated using a checklist. The encounter may be videotaped for later evaluation.
- Standardized Patients (SP) Simulated patients are trained to respond in a manner similar to real patients. The standardized patient can be trained to rate MSc doctor's performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MSc doctor's performance.
- Objective Structured Clinical Examination (OSCE) A series of stations with standardized tasks for the MSc doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MSc doctors.
- Procedure or Case Logs MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- PSQs Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by a MSc doctors.

- Case /problems assess use of knowledge in diagnosing or treating patients or evaluate procedural skills.
- Models: are simulations using mannequins or various anatomic structures to assess procedural skills and interpret clinical findings. Both are useful to assess practice performance and provide constructive feedback.
- 360 Global Rating Evaluations MSc doctors, faculty, nurses, clerks, and other clinical staff evaluate MSc doctors from different perspectives using similar rating forms.
- Portfolios A portfolio is a set of project reports that are prepared by the MSc doctors to document projects completed during the MSc study years. For each type of project standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes.
- Examination MCQ A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
- Examination Oral Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
- Procedure or Case Logs MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- PSQs Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MSc doctors.

Annex 5, program evaluation tools

By whom	Method	sample
Quality Assurance	Reports	#
Unit	Field visits	
External Evaluator	Reports	#
(s):According to	Field visits	
department council		
External Examiner		
(s): According to		
department council		
Stakeholders	Reports	#
	Field visits	
	questionnaires	
Senior students	questionnaires	#
Alumni	questionnaires	#

Annex 6, program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الماجستير مع المعايير الأكاديمية المعتمدة من كلية الطب أسيوط لدرجة الماجستير في الباثولوجيا الطبية I-General Academic reference standards (GARS) for postgraduates versus Program ARS

1- Graduate attributes

Faculty ARS	NAQAAE General ARS for
1- Have the capability to be a scholar,	Postgraduate Programs 1- احادة تطبيق أساسيات و منهجيات البحث
understanding and applying basics, methods and tools of scientific	العلمي واستخدام أدواته المختلفة
research and medical audit in pathology	
2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in the pathology.	2-تطبيق المنهج التحليلي واستخدامه في مجال التخصص
3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences,	3-تطبيق المعارف المتخصصة و دمجها مع المعارف ذات العلاقة في ممارسته المهنية
medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of Pathology.	
4- Dealing with common problems and health promotion using updated information in the field of Pathology.	4-إظهار وعيا بالمشاكل الجارية و الرؤى الحديثة في مجال التخصص
5- Identify and share to solve health problems in his Pathology.	5-تحديد المشكلات المهنية و إيجاد حلولا لها
6- Acquire all competencies that enable him to provide safe, scientific, ethical care	6-إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل التكنواوجد قالوناسية رما يخدم ممارسته المهنية
technology in the pathology	

1- Graduate attributes (Continuous)

Faculty ARS	NAQAAE General ARS for
	Postgraduate Programs
7- Demonstrate interpersonal and communication skills that ensure effective information exchange with other health professions, the scientific community, junior students and the public.	7-التواصل بفاعلية و القدرة على قيادة فرق العمل
8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.	
9- Acquire decision making capabilities in different situations related to Pathology field of practice.	8–اتخاذ القرار في سياقات مهنية مختلفة
10- Show responsiveness to the larger context of the related health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.	9- توظيف الموارد المتاحة بما يحقق أعلي استفادة و الحفاظ عليها
11- Be aware of public health and health policy issues and share in system-based improvement of Pathology practice and related health care.	10-إظهار الوعي بدوره في تنمية المجتمع و الحفاظ على البيئة في ضوء المتغيرات العالمية و الإقليمية
12- Show appropriate attitudes and professionalism.	11-التصرف بما يعكس الالتزام بالنزاهة و المصداقية و الالتزام بقواعد المهنة
 13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Pathology or one of its subspecialties. 	12-تنمية ذاته أكاديميا و مهنيا و قادرا علي التعلم المستمر

2-Academic standards

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
 2.1. A - Established basic, biomedical, clinical, epidemiological and behavioral sciences related to pathology 2.1. B- The relation between practice in 	2–1–أ–النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة. 2–1–ب–التأثير المتبادل بين الممارسة
pathology and the welfare of society.	المهنية وانعكاسها علي البيئة.
2.1. C- Up to date and recent developments in common problems related to the pathology	2−1−ج-التطورات العلمية في مجال التخصص.
2.1. D- Ethical and medicolegal principles relevant to practice in the pathology field.	2–1–د–المبادئ الأخلاقية و القانونية للممارسة المهنية في مجال التخصص.
2.1. E- Quality assurance principle related to the good medical practice in the pathology	2-1-هـ- مبادئ و أساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. F- Ethical and scientific basics of medical research.	2-1-و أساسيات وأخلاقيات البحث العلمي

Faculty ARS	NAQAAE General ARS for
	Postgraduate Programs
 2.2. A- Correlation of different relevant sciences in the problem solving and management of common problems of the pathology 2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common situations 	2-2-أ- تحليل و تقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل
2.2. B- Problem solving skills	
based on data analysis and evaluation (even in the absence of some) for common situations related to pathology	2-2-ب- حل المشاكل المتخصصة مع عدم توافر بعض المعطيات
2.2. A- Correlation of different relevant sciences in the problem solving and management of common problems of pathology	2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية
2.2. C- Demonstrating systematic approach in studding common themes or problems relevant to the pathology	2-2-د- إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية

2.4. A- Demonstrate practice- based learning and improvement skills that involves investigation and evaluation of their own practice, appraisal and assimilation of scientific evidence, improvements in provided services and risk management.	2–2هـ- تقييم المخاطر في الممارسات المهنية في مجال التخصص
2.4. A- Demonstrate practice- based learning and improvement skills that involves investigation and evaluation of their own practice, appraisal and assimilation of scientific evidence, improvements in provided services and risk management.	2-2-و – التخطيط لتطوير الأداء في مجال التخصص

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
2.2. D- Making alternative	 2-2-ز – اتخاذ القرارات المهنية في
decisions in different	
situations in the field of	سيادك لمهنية لمتتوقة
pathology	
2.3.A- Provide practical	2–3–أ– إتقان المهارات المهنية
and or laboratory	الأساسية و الحديثة في مجال
services that can help patient	· · · · · · · · · · · · · · · · · · ·
care ,solving nealth problems	التحصص
and beller	
structure and function	
2 3 B- Demonstrate	
practical / laboratory	
skills relevant to pathology	
2.3. C- Write and	2-3-2 ب- كتابة م تقبيد التقارير
comment on reports for	
situations related to the	المهنية
pathology field	
2.3.A- Provide practical	2-3-ج- تقييم الطرق و الأدوات
and or laboratory	القائدة في حال التخص مدر
services that can help patient	العالمة في مجان التحصص
care ,solving health problems	
and better	
understanding of the normal	
structure and function.	
2.3. B- Demonstrate	
practical / laboratory	
and or laboratory services that can help patient care ,solving health problems and better understanding of the normal structure and function. 2.3. B- Demonstrate practical / laboratory skills relevant to Pathology	القائمة في مجال التخصص

Faculty ARS	NAQAAE General ARS for
	Postgraduate Programs
2.4. D- Demonstrate	2-4-أ-التواصل الفعال بأنواعه
interpersonal and	7 : In • • 11
communication skills	المحتلقة
that result in effective	
information exchange	
and teaming with	
patients, their families,	
lab technical staff and	
other health	
professionals.	
2.4. A- Demonstrate Practice-	4-2-
Based learning and	
Improvement skills that	المعلومات بما يخدم الممارسة المهنية
involves investigation	
and evaluation of their	
own practice, appraisal	
and assimilation of	
scientific evidence,	
improvements in	
provided services and	
risk management.	
2.4. B- Use all information	
sources and technology	
to improve his practice.	
2.4. A- Demonstrate Practice-	2–4–ج– التقييم الذاتي وتحديد
Based learning and	احتداحاته التعامية الشخصيية
Improvement skills that	
involves investigation	
and evaluation of their	
own practice, appraisal	
and assimilation of	
improvements in	
improvements in	

provided services and	
risk management.	
2.4. B- Use all information	
sources and technology	
to improve his practice.	
2.4. E-Demonstrate	
Professionalism	
behaviors, as manifested	
through a commitment	
to carrying out	
professional	
responsibilities,	
adherence to ethical	
principles, and sensitivity	
to a diverse patient	
population.	

Faculty ARS	NAQAAE General ARS for
	Postgraduate Programs
2.4. A- Demonstrate Practice-	2–4–د– استخدام المصادر المختلفة
Based learning and	
Improvement skills that	للحصول على المعلومات و المعارف
involves investigation	
and evaluation of their	
own practice, appraisal	
and assimilation of	
scientific evidence,	
improvements in	
provided services and	
risk management.	
2.4. C- Demonstrate skills of	4−2-ه- وضع قواعد ومؤشرات تقييم
teaching and evaluating	· · · · · · · · · · · · · · · · · · ·
others.	اداء الاخرين
2.4. F- Demonstrate an	2-4-و - العمل في فريق ، وقيادة فرق
awareness of and	
responsiveness to the larger	في سيافات مهنيه المحلفة
context and system of health	
care and academic services and	
the ability to effectively use	
system resources to provide	
care that is of optimal value.	
2.4. G- Demonstrate skills of	2-4-ز – إدارة الوقت بكفاءة
effective time	
management.	
2.4. H- Demonstrate skills of self	2-4-ح- التعلم الذاتي و المستمر
and continuous learning.	

Comparison between ARS & ILOS for master degree

In Pathology

(ARS)	(ILOs)
 2-1- Knowledge and understanding 2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related to pathology 	 2-1- Knowledge and understanding 2-1-A- Explain the essential facts and principles of relevant basic sciences including Histology related to pathology 2-1-B- Mention essential facts_of clinical supportive sciences related to. pathology 2-1-C- Demonstrate sufficient knowledge of the main subjects related to pathology
2-1-B The relation between practice in the pathology and the welfare of society.	2-1-H- State the impact of common problems related to the field of Pathology on the society and how good practice can improve these problems.
2-1-C- Up to date and recent developments in common problems related to the field of.pathology	 2-1-C- Demonstrate sufficient knowledge of the main subjects related to pathology 2-1-D- Give the recent and update developments in the most important themes related to pathology

2-1-D- Ethical and medicolegal principles relevant to practice in the pathology.	2-1-E- Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the field of pathology.
2-1-E -Quality assurance principles related to the good medical practice in the pathology field.	2-1-F- Mention the basics and standards of quality assurance to ensure good practice in the field of. pathology
2-1-F- Ethical and scientific basics of medical research.	2-1-G- Mention the ethical and scientific principles of medical research methodology.

continuous	continuous				
(ARS)	(ILOs)				
<u>2-2- Intellectual skills</u> :	2-2- Intellectual skills:				
2-2-A- Correlation of different relevant sciences in the problem solving and management of common problems of the Pathology.	2-2-A- Correlate the relevant facts of relevant basic and clinically supportive sciences with reasoning, diagnosis and management of common problems of the Pathology.				
2-2-B-Problem solving skills based on data analysis and evaluation (even in the absence of some) for common situations related to Pathology.	2-2-B- Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical or practical situations related to Pathology.				
2-2-C- Demonstrating systematic approach in studding common themes or problems relevant to the Pathology field.	2-2-C- Design and /or present a case or review (through seminars/journal clubs.) in one or more of common themes or problems relevant to the Pathology.				
2-2-D Making alternative decisions in different situations in the field of the Pathology.	2-2-D- Formulate management plans and alternative decisions in different situations in the field of the Pathology.				
2-3- Practical skills:	2/3/1/Practical skills)				
2-3-A- Provide practical and or laboratory services that can help patient care ,solving health problems and better understanding of the normal structure and function.	 2-3-1-A- Demonstrate competently relevant laboratory skills related to Pathology. 2-3-1-B- Use the up to date technology for the conditions related to Pathology. 				

2-3-B - Demonstrate practical/laboratory skills relevant to Pathology.	 2-3-1-C- Develop plans for performing experiments related to Pathology. 2-3-1-D- Carry out common experiments related to Pathology.
	 2-3-1-E- Counsel and educate students, technicians and junior staff, in the lab about conditions related to Pathology; including handling of samples, devices, safety and maintenance of laboratory equipments. 2-3-1-F- Use information technology in some of the situations related to Pathology. 2-3-1-G- Share in providing health care services aimed supporting patient care ,solving health problems and better understanding of the normal structure and function.
2-3-C- Write and comment on	2-3-1-H Write competently all forms of
reports for situations related to the field	professional reports related to Pathology (Jab reports
Pathology.	experiments reports,).

continuous	continuous					
(ARS)	(ILOs)					
<u>2-4- General skills</u>	2/3/2 General skills					
2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own practice, appraisal and assimilation of scientific evidence, improvements in provided services and risk management	 2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks). 2-3-2-B- Appraises evidence from scientific studies. 2-3-2-C- Conduct epidemiological studies and surveys. 					
2-4-B - Use all information sources and technology to improve his practice.	 2-3-2-C- Conduct epidemiological Studies and surveys. 2-3-2-D-Perform data management including data entry and analysis and Using information technology to manage information, access on-line medical information; and support their own education. 					
2-4-C- Demonstrate skills of teaching and evaluating others.	2-3-2-E- Facilitate learning of students, lab technical staff and other health care professionals including their evaluation and assessment.					
2-4-D- Demonstrate interpersonal and communication skills that result in effective	2-3-2-F- Maintain therapeutic and ethically sound relationship with patients, their families, lab					

information exchange and teaming with patients, their families, lab technical staff and other health professionals.	 professionals. 2-3-2-G- Elicit information using effective nonverbal, explanatory, questioning, and writing skills. 2-3-2-H- Provide information using effective nonverbal, explanatory, questioning, and writing skills. 2-3-2-I- Work effectively with others as a member of a team or other professional group. 				
2-4-E-Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	 2-3-2-J- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society. 2-3-2-K- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices. 2-3-2-L-Demonstrate sensitivity and responsiveness to others' culture, age, gender, and disabilities. 				
2-4-F- Demonstrate an awareness	2-3-2-M-Work effectively in relevant				
of and responsiveness to the	academic and health care				
larger context and system of	delivery settings and systems				
health care and academic	including good administrative and				
services and the ability to	time management.				
effectively use system	2-3-2-N- Adopt cost-effective				
resources to provide care	practice and resource allocation				
that is of optimal value.	that does not compromise quality				

	of services. 2-3-2-O - Assist patients in dealing with system complexities.
2-4-G- Demonstrate skills of effective time management.	2-3-2-M -Work effectively in relevant academic or health care systems including good administrative and time management.
2-4-H- Demonstrate skills of self and continuous learning.	2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).

II-Program matrix

Knowledge and Understanding

Course	Program covered ILOs											
	2/1/A	2/1/A 2/1/B 2/1/C 2/1/D 2/1/E 2/1/F 2/1/G 2/1/H										
Course 1:												
Histology												
Course 2:							\checkmark					
Pathology												

Intellectual Outcomes

Course	Program covered ILOs									
	2/1/A 2/1/B 2/1/C 2/1/D									
Course 1:										
Histology										
Course 2:			\checkmark							
Pathology										

Practical Skills

Course	Program covered ILOs									
	2/3/1	2/3/1 2/3/1 2/3/1 2/3/1 2/3/1 2/3/1 2/3/1 2/3/1								
	/A	/В	/C	/D	/E	/F	/G	/н		
Course 1:										
Histology										
Course 2:				\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Pathology										

General Skills

Course	Program covered ILOs										
	2/3/2	2/3/2 2/3/2 2/3/2 2/3/2 2/3/2 2/3/2 2/3/2 2/3/2									
	/A	/В	/C	/D	/E	/F	/G	/н			
Course 1:											
Histology											
Course 2:								\checkmark			
Pathology											

General Skills									
Course	Program covered ILOs								
	2/3/2 2/3/2 2/3/2 2/3/2 2/3/2 2/3/2 2/3/2								
	/ / /K /L /M /N /C								
	Т	J							
Course 1:									
Histology									
Course 2:									
Pathology									

Annex 7, Additional information:

Department information:

History and overview

Mission

Clinical Diagnostic services

- 1- Surgical Pathology
- 2- Cytopathology
- 3- Gynaecological and Obstetric pathology
- 4- Immunohistochemical diagnosis

Educational services

Research Services

Affiliated Institutions:

- 1- Department of Pathology, South Egypt Cancer Institute (SECI).
- 2- department of Pathology, University of Sohag
- 3- Department of Pathology, Qena.

Research Services:

The main interest of research in our department is the application of recent pathological research methodologies and discoveries to improving the diagnosis of human disease.

The department provides research opportunities for postgraduates and staff from the department and from any other discipline both from Egypt and abroad.

The main research facilities available at the department:

- 1- Histopathological examination and evaluation of tissues
- 2- Cytopathological assessment of exfoliative and FNA cytology
- 3- Immunohistochemical –based researches

Are you interested in using immunohistochemistry (IHC) for Research purposes?

<u>Availability:</u>

The Department of Pathology has in-house research-specific Immunohistochemistry lab based in the department at Faculty of Medicine and is independent from the diagnostic IHC lab in Assiut University Hospital. Before establishment of the lab a big number of research was conducted in the diagnostic IHC lab (see publications)

Many of the department staff are expert in application of IHC in research studies and welcome any academic or physician interested in conducting research using the IHC technique.

Examples of research areas of expertise using IHC:

- Optimization of antigen retrieval conditions: We are using detergent, enzymatic, or microwave retrieval methods to expose the target antigen to the antibody.
- Titration of the primary antibody concentration.
- Adjusting the experimental conditions of the immunostaining.
- Examine stained tissues for interpretation of immunostaining results by our experts pathologists.
- Double immunostaining.
- Imaging for publications.
- Statistical analysis.

Current Research studies and projects:

1-Molecular and immunophenotypical classification of Breast cancer in Egyptian Patients

2- Molecular characterisation of ovarian epithelial tumours.

3-Others (will be completed soon)

<u>Clinical Diagnostic services</u>

I- Surgical Pathology Diagnostic Services

The Surgical Pathology Service provides complete diagnostic services in adult and paediatric Surgical Pathology for all departments of Assiut University Hospital, Women's heath hospital and Paediatric hospital. A big and busy surgical pathology lab is based at the Assiut University Hopsital, first floor. The Lab is under supervision of the head of department Prof Dr Abeer El Refaey Mohamed. Annually the lab receive and diagnose around 3000 case

How long it takes for a pathology specimen to be diagnosed?

It is difficult for patients and physicians to understand how surgical pathology specimen is processed from the time it is received by us till diagnosis. Through the following images we will take you in a tour in our lab to see what happens to a specimen that the surgeon sends to pathology!!!!

2- Cytopathology

The pathology department has a separate lab for processing cytology samples. The lab is based in the first floor in the main Assiut university Hospital with the surgical pathology lab. It is under supervision of Prof Dalia Badary. We receive and diagnose around 1500 sample annually.

3- Gynaecological and Obstetric pathology

The pathology department has a separate lab for processing Gynaecological and obstetric specimens The lab is based in the ground floor in the Women's Heath Hospital (one of Assiut university Hospitals) and is under supervision of Prof Dalia Badary. We receive and diagnose around 1500 case annually.

4- Immunohistochemical diagnosis (IHC)

A separate IHC diagnostic unite is based at the Assiut University Hospital. The Unite is under supervision of Prof Heba El-Deek

The Immunodiagnosis Services vat the pathology department provides an extensive number of Immunohistochemistry that is essential for accurate diagnosis and tumour typing. IHC is essential for the accurate identification organisms, of infectious distinction between morphologically-similar undifferentiated tumours, separation of and malignant neoplasms, prognostication benign and of malignancies.

Our goals through the use of IHC services are:

- 1. Conducting highest quality of Immunohistochemical techniques
- 2. Make our services available for consultation to referring clinicians
- 3. Make the service available also for scientific research both in translational and clinical fields for better understanding and diagnosis of human diseases.

Example of the available immunohistochemical markers at the IHC unite

Estrogen Receptors Progesteron Receptors CD3 CD20 CD30 Desmin Smooth Muscle actin (SMA) HMB45 CEA EMA CK Vimintin S100

- Annually the Unite conducts around 200-400 IHC test.
- How much does it coast?

The service is free for Hospital-based patients.

It coasts about 85-100 EL for specimens from outside the hospital

4 Staff members:
Prof. Dr Dalia El Sers: head of the department
Prof Abd elhady Omar
Prof Saad Atta
Prof Moheb Daneil
Prof Sana Soliman
Prof Mahmoud Nassar
Prof Sana Sotohy
Prof. Nermeen Kamel
Prof Etemad Yassin
Prof Fatma Badary
Prof Rabab Mohammad
Prof Mohammad Galal
Prof Howayda Ismail
Prof hesham Saad
Prof Sabah Fadel
Prof Mahmoud Rezk
Dr Moemen Hafez
Dr Hossam Mady
Dr Ola Omran
Dr Eman Ahmad
Dr Abeer Refaiy
Dr Dalia El Sers
Dr Rabab Ahmad
Dr Gehan Elosely
Dr Rania Makboul
Dr Heba El Deek
Dr Noha Abdel Raheem
DR Asmaa Mahmoud Ahmed
Dr Hisham Sayed
Dr Mahmoud Farouk
Dr Dalia Badary
Dr Ghada Hosney Dr Mai El Kabab
4 Opportunities within the department:

Pathology is a discipline that dedicated to understanding human diseases. Pathology has deep roots in research that provides the scientific foundation for all medical practice. The pathologist works with all other medical specialties, using the tools of laboratory medicine (histology, cytology, biochemistry, molecular biology, etc.) to provide information essential to problem solving in clinical practice.

All of the diagnostic methods that pathologists now use routinely for patient care our Pathology Department continues in this tradition of advancing health through basic research and through continually applying the newest knowledge and technologies in order to find better ways of diagnosing, preventing, and treating disease.

Pathology offers numerous opportunities for training in biomedical research. Intensive researches are available in collaboration with all clinical and basic departments

Experimental pathology also is available to cover spectrum of basic researches.

Department quality control insurance for completing the program:

We believe that a diverse range of material seen under the appropriate supervision and guidance of an educational supervisor is a superior method of working, towards achieving the required competencies, than the indicative figures below. The College intends to monitor and gather evidence about the optimal workload figures and training periods required to achieve the desired competencies, in conjunction with the relevant methods of assessment for training

(End of the program specification)