

## Course Specification

### Pathology

#### 1. General information

<b>Course Title</b>	<b>Pathology</b>
<b>Code No.</b>	<b>PA731</b>
<b>Department</b>	<b>Pathology</b>
<b>Teaching Hours</b>	<b>300hrs.</b>
<b>Language</b>	<b>English</b>
<b>Academic Year</b>	<b>Third Year</b>
<b>Course Coordinator</b>	<b>Dr. Habsa Ali Ahmad</b>
<b>Date and Signature</b>	<b>2019/2020</b>

#### 1.1. Number of hours per week.

Lectures: 6 hrs.      Laboratory: 2 hrs.      Training: 2 hrs.      Total: 10hrs.

#### 2. Objectives of Course:

- To familiarize students by defining various frequently used terms in pathology.
- To provide a core knowledge of disease processes and to familiarize students with the basic disease patterns to convey comprehensively that every disease has a pathologic basis by discussing the clinical course, prognosis and complications of diseases.
- To characterize the three main anatomic concepts of disease: Degenerative, Inflammatory and Neoplastic.
- To elaborate the process of inflammation, reaction, damage and repair.
- To give students an appreciation of the concepts of hemodynamic disorders.
- To characterize the multistep process of Neoplasia.
- To enhance the knowledge on the classification and characteristics of common tumors and epidemiology of common malignant lesions in Libya.
- To give students the concepts of common autoimmune and infectious disease.
- To enhance the knowledge on all pathological aspects of diseases that can occur in body systems focusing on the commonest diseases.
- To enable the students to correlate the histopathology with the clinical basis of diseases, and ultimately to strengthen the essential basic knowledge for their clinical years and subsequent clinical careers.

### 3. Intending Learning Outcomes (ILOs):

#### a. Knowledge and Understanding:

On successful completion of the course, student will be able to:

a.1	Determine the terms in pathology as inflammation, reaction, damage and repair,...etc and outline the process.
a.2	Recognize the incidence, etiology and pathogenesis of different disease processes including immunity and genetic disorders.
a.3	List the fate and complications of different diseases.
a.4	Describe and discuss characteristic gross and microscopic pictures of different pathologic lesions within specific organ system and the associated functional disturbances.
a.5	Classify neoplasm and demonstrate the clinical presentation, the spread of tumours in the body and principles of management of tumours.
a.6	Outline the risk factors for different malignant lesions and outline the epidemiology of tumours in Libya.
a.7	Explain the role of immunity and molecular basis of neoplastic lesions.
a.8	Determine the role of various tumour markers and their role in the diagnosis and prognosis of tumours.

#### b. Intellectual skills:

On successful completion of the course, student will be able to:

b.1	Compare between the different disease processes.
b.2	Analyze and interpret the various gross and microscopic pathologic data resulting from the disease process.
b.3	Expect the diagnosis of a case after provided data analysis.
b.4	Attain a creative thinking for problem identification and solving.
b.5	Correlate of underlying gross and microscopic pictures for the diseases

#### c. Practical and Professional Skills:

On successful completion of the course, student will be able to:

c.1	Have an idea about different diagnostic pathological tools.
c.2	Being familiar with & carry out the most cost effective pathology diagnostic technique.
c.3	Recognize different anatomic and pathologic features of the specimen.
c.4	Discover & demonstrate the difference between the normal &the pathology of each tissue.
c.5	Analyze and differentiate the gross and microscopic pictures of different disorders to attain correct diagnosis .
c.6	Make a report commenting on a pathologic specimen.

#### d. General and Transferable skills:

On successful completion of the course, student will be able to:

d.1	Adopt principles of a lifelong learning with a strong commitment to it.
d.2	Having presentation & communication skills.
d.3	Having diagnostic skills.
d.4	Having Information seeking.
d.5	Accept the limitation in knowledge and always strive for excellence.
d.6	Maintain a suitable image in manner, speech, dress and relationships that is consistent with the medical profession.

#### 4. Course Contents:

Academic Subject	Total Hours (300)	Lectures	Laboratory	Tutorials
Introduction	6	2	2	2
Adaptation, Cell Injury & Cell Death	14	10	2	2
Inflammation and Repair	20	14	4	2
Hemodynamic Disorders	16	12	2	2
Pathology of the Immune System	18	12	2	4
Neoplasia	14	10	2	2
Developmental and Genetic Diseases	14	10	2	2
General Pathology of Infectious Diseases	12	8	2	2
Environmental and Nutritional Diseases	6	2	2	2
Cardiovascular pathology	20	12	4	4
Respiratory System	24	12	6	6
Digestive System	32	20	6	6
Urinary System	20	12	4	4
Male reproductive system	16	8	4	4
Female genital system	18	10	4	4
Endocrine system	14	6	4	4
Lymphoreticular System & Bone Marrow	14	6	4	4
Nervous System	10	6	2	2
Locomotors System	12	8	2	2

## 5. Teaching and Learning Methods :

- Formal Lectures
- Practical sessions (Histopathology slide lab & Museum of pathology & fresh surgical samples)
- Case studies, Group discussion & Assignments

## 6. Evaluation Methods

Evaluation Method	Date	Marks 300	%	ILOs Assessed
1	<b>Annual Work</b>	<b>60</b>	<b>20%</b>	
	▪ Mid-year Exam	45		Knowledge, understanding and intellectual skills
	▪ Quizzes & Assignments	15		Knowledge, understanding and intellectual skills
2	<b>Final Exam</b>	<b>240</b>	<b>80%</b>	
	▪ Written	150		Knowledge, understanding and intellectual skills
	▪ Practical	60		knowledge, understanding and intellectual skills Practical and professional skills General and transferable skills
	▪ Oral	30		Knowledge, understanding and intellectual skills Professional, general and transferable skills

## 7. Evaluation Schedule:

Evaluation	Date
Mid-term written exam. Written exam. covers general pathology & two body systems. It includes a varieties of questions; - True & False questions & Best answers choice Questions/ Multiple choice questions with case studies - Essay Questions - Matching and complete the blanks +/-	<b>January</b>
Final written exam. Written exam. covers general & systemic pathology It includes a variety of questions; - True & False questions & Best answers choice Questions/ Multiple choice questions with case studies - Essay Questions - Matching and complete the blanks +/-	<b>June</b>
Practical exam. (Gross & microscopic examination of tissue).	<b>June</b>
Oral examination in general & systemic pathology.	<b>June</b>
Participation (discussions, assignments/ continuous assessment exam.....etc)	<b>Daily- Monthly</b>

## 8. References:

Reference Title	Publisher	Edition	Author	Place
<b>Course books ; Robbins And Cotran Pathologic Basis Of Disease</b>	Lifestyle Elsevier	8 <sup>th</sup> , 9 <sup>th</sup> & 10 <sup>th</sup>	Kumar , Abbas , Aster	Library Self-owner (soft-hard copy)
<b>Exam. Preparatory manual for undergraduates (general &amp; systemic pathology)</b>	Jaypee Brothers Medical Pub	3 <sup>rd</sup> edition -Follow updating	Ramadas Nayak, Rakshatha Nayak	Self owner (soft-hard copy)
<b>Robbins and Cotran Atlas of Pathology</b>	- Saunders  - Elsevier	- 3 <sup>rd</sup> = 2014 - 4 <sup>th</sup> = 2020 -Follow updating	Klatt, Edward C	
<b>Supplementary books; Course Notes (Lecturer's Handout &amp; ppt ) of both theoretical &amp; practical sessions</b>		2019/2020	Dr Habsa Ali & Dr Suhair Alkilani	Available at faculty bookshops
<b>Harsh Mohan, Textbook of Pathology &amp; Quick review 3<sup>rd</sup> edition</b>	Jaypee Brothers Medical	6 <sup>th</sup> edition	Harsh Mohan	Self owner (soft-hard copy)
<b>Academic journal</b>	Science direct PubMed Modern pathology(optional to students)			
<b>Academic Magazine</b>	Any available medical magazine related to pathology (optional to students)			
<b>Internet websites</b>	<a href="http://www.kasralainy.edu.eg/elearning/">http://www.kasralainy.edu.eg/elearning/</a> <a href="http://www.pathmax.com/">http://www.pathmax.com/</a> <a href="http://www-medlib.med.utah.edu/WebPath/LABS/LABMENU.html#2">http://www-medlib.med.utah.edu/WebPath/LABS/LABMENU.html#2</a> <a href="http://www.med.uiuc.edu/PathAtlasf/titlePage.html">http://www.med.uiuc.edu/PathAtlasf/titlePage.html</a> <a href="http://www.medscape.com/pathologyhome">http://www.medscape.com/pathologyhome</a> <a href="http://www.gwumc.edu/dept/path/2F.HTM">http://www.gwumc.edu/dept/path/2F.HTM</a> <a href="http://www.path.uiowa.edu/virtualslidebox/">http://www.path.uiowa.edu/virtualslidebox/</a> <a href="http://www.virtualpathology.leeds.ac.uk/">http://www.virtualpathology.leeds.ac.uk/</a> <a href="http://pathology.class.kmu.edu.tw/index.htm">http://pathology.class.kmu.edu.tw/index.htm</a> <a href="http://www.gla.ac.uk/faculties/medicine/teaching/MedCALlist.htm">http://www.gla.ac.uk/faculties/medicine/teaching/MedCALlist.htm</a>			

## 9. Required Facilities:

Required Facilities	Comments
Addition of more related text books in library	Purpose; Accessibility and availability of books for a lot of students at same time & for those are interested to borrow.
Electronic library with good internet services	Purpose; Accessibility and availability of referred books, other medical books & scientific journals to all students, in aiming to enhance knowledge of students
Laboratory facilities as Addition of extra slides and gross specimen, digital pathology.....etc	Accessibility

Course Coordinator: Dr Habsa Ali Ahmad

Signature: .....

Programme Coordinator: Dr. Hussain Amaigil

Signature: .....

Head of Department: Dr Habsa Ali Ahmad

Signature: .....

Date: 2019/2020

Course ILOs Mapping Matrix – Pathology

Topic	Knowledge and Understanding a								Intellectual Skills b					Practical and Professional Skills c						General and Transferable Skills d					
	1	2	3	4	5	6	7	8	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6
Introduction	x												x	x	x					x	x	x	x	x	x
Adaptation, Cell Injury & Cell Death	x	x							x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Inflammation and Repair	x	x							x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Hemodynamic Disorders	x	x							x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Pathology of the Immune System		x							x	x	x	x				x	x	x	x	x	x	x	x	x	x
Neoplasia			x		x	x	x	x	x	x						x	x	x	x	x	x	x	x	x	x
Developmental and Genetic Diseases		x							x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
General Pathology of Infectious Diseases	x	x							x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Environmental and Nutritional Diseases	x								x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Cardiovascular pathology	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Respiratory System	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Digestive System	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Urinary System	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Male reproductive system	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Female genital system	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Endocrine system	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Lymphoreticular System & Bone Marrow	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Nervous System	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x
Locomotors System	x	x	x	x					x	x	x	x	x			x	x	x	x	x	x	x	x	x	x