Template
For
Course Specification

Faculty : Mansoura Faculty of Medicine
Department : Pathology

Course Specification

Programme(s) on which the course is given : MB.B Ch
Department offering the course : Pathology
Academic year / level : 2015/2016 (3rd year)
Date of specification approval : 27/1/2016

A- Basic information

Title: Pathology Code: PATH
Lecture: 120 Practical/tutorial 120 Total: 240

B- Professional Information

1 - Overall Aims of Course:

To enable the student to acquire knowledge, skill, and attitude related to pathogenesis, morphological (microscopic and macroscopic pictures) and clinical manifestations of basic pathological processes and specific diseases at the molecular, cellular, tissue, organs, and whole body level.

2 – Intended Learning Outcomes of Course (ILOs)

A- Knowledge and Understanding:

By the end of the course, the student will be able to:

A1- Identify altered structure and function of the body and its major systems that are seen in various diseases as regard etiology, pathogenesis, pathological features, prognosis, fate & complications.

A2- Identify the general pathological features of inflammation (definition, etiology, types, pathogenesis of each type, gross morphology, microscopic features, systemic manifestations, fate & complications), tissue repair (definition, types, examples for each & factors affecting tissue repair), cell injury (etiology, pathogenesis, types, examples for each, macroscopic & microscopic features and effects) and cell death (types and examples, etiology, pathogenesis & pathological features).

A3- Recognize different forms of circulatory disturbances as atherosclerosis, embolism, gangrene, edema, congestion, **thrombosis**……etc.

A4- Identify different aspects of infections as toxaemia, bacteraemia, septicaemia and pyaemia.

A5- Explain aetiology, pathogenesis, clinical presentation, pathological forms, macroscopic & microscopic features, fate and complications of tuberculosis.

A6- Explain aetiology, pathogenesis, clinical features and diagnosis of syphilis.

A7- Identify pathological features of various viral, mycotic and parasitic diseases.

A8-Recognize patterns, pathogenesis and morphology of growth disturbances.

A9- Identify steps of carcinogenesis and origin and morphological features of different types of neoplasms.

A10- Recognize aetiology, pathogenesis, clinical features, diagnosis of common and life threatening illness affecting the body and each of its major organ systems, presenting throughout the age spectrum including inflammatory, neoplastic and degenerative lesions of different body systems including:-

- Cardiovascular system
- Respiratory system
- Gastrointestinal system
- Hepatobiliary system
- Exocrine pancreas and peritoneum
- Urinary system
- Male genital system
- Female genital system
- Breast
- Endocrine glands
- Musculoskeletal system
- Hematopoeitic system
- Lymph nodes and spleen
- Central nervous system

B- Intellectual Skills:

By the end of the course, the student will be able to:

B1- Relate the morphological changes of common and important diseases at macroscopic and microscopic level to clinical conditions such as:

- ✓ Inflammatory lesions (e.g. acute appendicitis, chronic cholecystitis)
- ✓ Tissue repair (e.g. skin scar)
- ✓ Degenerative diseases (e.g. cloudy swelling, fatty liver, hyalinosis, amyloidosis)
- ✓ Circulatory disturbances (e.g. thrombus, pulmonary embolism)
- ✓ Infectious diseases (e.g. tuberculosis)
- ✓ Growth disturbances (e.g. hypertrophy, atrophy, hyperplasia)
- ✓ Neoplasms whether benign (e.g. nevus, papilloma) or malignant (e.g. carcinoma, sarcoma)
- ✓ Cardiovascular diseases (e.g. ventricular hypertrophy)
- ✓ Respiratory diseases (e.g. emphysema, rhinoscleroma, oat cell carcinoma)
- ✓ Gastrointestinal diseases (e.g crohn's disease, ulcerative colitis)
- ✓ Hepatobiliary diseases (e.g gall stones, cirrhosis, hepatocellular carcinoma)
- ✓ Urinary system (e.g polycystic kidney, bladder carcinoma)
- ✓ Male genital system (e.g benign prostatic hyperplasia, testicular tumors)
- ✓ female genital system (e.g patterns of endometrium, ovarian tumors)
- ✓ breast (e.g benign & malignant breast tumors)
- ✓ endocrine diseases (e.g goiter)
- ✓ musculoskeletal diseases (e.g tumors of bone and cartilage)
- ✓ diseases of lymph nodes (e.g reactive hyperplasia, lymphoma)
- ✓ CNS diseases (e.g meningioma, cerebellar astrocytoma).

B2- Correlate clinical manifestation with pathological mechanisms occurring at the molecular, tissue, organ, and whole body level such as:

- Suppuration
- Fibrosis & collagen deposition during tissue repair
- Pathogenesis of thrombosis, embolisms & gangrene
- Pathogenesis of primary and secondary tuberculosis

- Steps of carcinogenesis.

B3- Predict complications and organize prognostic factors of various diseases such as:

- ☒ Inflammatory lesions e.g abscess
- ☒ Tissue repair e.g tissue fibrosis
- ☒ Circulatory disturbances e.g thrombosis, embolism
- ☒ Infectious diseases e.g TB
- ☒ Neoplasms in different organs

C- Professional and Practical Skills:

By the end of the course, the student will be able to:

C1- Elicit microscopic data of different pathological lesions.

C2- Elicit macroscopic findings of different pathological lesions.

C3- Differentiate between different diagnosis to arrive at a preferred or definite diagnosis.

D- General and Transferable Skills:

By the end of the course, the student will be able to:

D1- Honor and respect seniors and other colleagues involved in his teaching and subsequently in his future practice.

D2- Communicate ideas and arguments effectively.

D3- Work effectively within a team.

3 – Contents

Topic	No. of hours	Lecture	Tutorial/Practical
General pathology	**111**	**53**	**58**
1- Introduction	2	2	-
2- Inflammation	14	7	7
3- Repair	6	4	2
4- Cell injury and cell death	12	6	6
5- Circulatory disturbances	17	6	11
6- Infectious diseases a- Toxaemia b- Bacteraemia c- Septicaemia d- Pyaemia e-TB f- Syphilis g- Viral infections h- Mycotic diseases i- Parasitic diseases	32	16	16
7- Disturbances of growth	4	2	2
8- Neoplasia	23	10	13
Special pathology	**129**	**67**	**62**
1- Cardiovascular diseases	12	8	4
2- Respiratory diseases	16	8	8
3- Gastrointestinal diseases	15	8	8
4- Diseases of hepatobiliary system	10	5	5
5- Diseases of exocrine pancreas and peritoneum	1	1	-
6- Diseases of urinary system	12	6	6
7- Diseases of male genital system	4	2	2

8- Diseases of female genital system	12	5	7
9- Diseases of breast	8	4	4
10- Endocrine diseases	10	4	5
11- Diseases of musculoskeletal system	10	5	5
12- Blood diseases	2	2	-
13- Diseases of lymph nodes and spleen	11	5	6
14- Diseases of central nervous system	7	4	3

4- Course - ILOs matrix

Topics	ILOs																		
	Knowledge										Intellectual skills			Practical skills			Transferable skills		
	a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	b1	b2	b3	c1	c2	c3	d1	D2	D3
Introduction	●																●	●	●
Inflammation	●	●									●	●	●	●	●	●	●	●	●
Repair	●	●									●	●	●	●	●	●	●	●	●
Cell injury& cell death	●	●									●			●	●	●	●	●	●
Circulatory disturbances	●		●								●	●	●	●	●	●	●	●	●
Infectious diseases	●			●	●	●	●				●	●	●	●	●	●	●	●	●
Growth disturbances	●							●			●			●	●	●	●	●	●
Neoplasia	●								●		●	●	●	●	●	●	●	●	●
CVS diseases	●									●	●		●	●	●	●	●	●	●
RS diseases	●									●	●		●	●	●	●	●	●	●
GIT diseases	●									●	●		●	●	●	●	●	●	●
Hepatobiliary diseases	●									●	●		●	●	●	●	●	●	●
Diseases of exocrine pancreas & peritoneum	●									●	●		●	●	●	●	●	●	●
Urinary diseases	●									●	●		●	●	●	●	●	●	●
Male genital diseases	●									●	●		●	●	●	●	●	●	●
Female genital diseases	●									●	●		●	●	●	●	●	●	●
Diseases of breast	●									●	●		●	●	●	●	●	●	●
Endocrine diseases	●									●	●		●	●	●	●	●	●	●
Musculoskeletal diseases	●									●	●		●	●	●	●	●	●	●
Blood diseases	●									●	●		●	●	●	●	●	●	●
Diseases of LNs & spleen	●									●	●		●	●	●	●	●	●	●
CNS diseases	●									●	●		●	●	●	●	●	●	●

5 – Teaching and Learning Methods

5.1- Lectures and small group teaching: The course is composed of 60 sessions.
** Lectures take place 2 times per week of a total period 6 hours weekly for 2 groups. The lecture hall is the theater named after Professor Kamal-Eldin Ahmed.
** Small group teaching take place once weekly of a period 2.5 hours for each 8 student small group teaching. The small group teaching hall is the pathology museum.
** Separate Lectures & small group teaching 2 times per week for Malaysian students; each of a period 2.5 hours. It take place in the large pathology Lab.
** Therefore, the teaching is delivered over 30 weeks.

5.2- Demonstration: 4 hours/week (2 hours for slide section, the other 2 hours for museum)
Each slide section contains (90-100 students). The students of each section are divided into small groups (10-15 students each). For each group, one demonstrator or assistant lecturer is available.
The slide sections are taken in small and large student labs in pathology department.
Each museum session is composed of (90-100) students divided into groups of 10-15 students. For each group, one demonstrator or assistant lecturer is available.
The museum sessions are taken in the museum of pathology department.

5.3- Tutorial and problem based learning in the form of cases and MCQ is defined for each museum session and are discussed with one of staff.

5.4 Self learning: through giving them certain topics to search, collect data and present it in front of senior staff

6 – Student Assessment Methods:

Method of student assessment	ILOs																		
	Knowledge										Intellectual skills			Practical skills			Transferable skills		
	a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	b1	b2	b3	c1	c2	c3	d1	d2	d3
Mid-term/Term exams	X	X	X	X	X	X	X	X	X	X	X	X	X						
Final written exam	X	X	X	X	X	X	X	X	X	X	X	X	X						
Final structured pactical exam	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Final structured oral exam	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X
MCQ exam	X	X	X	X	X	X	X	X	X	X	X	X	X						
Log book																	X		
Student activity																		X	X

Attendance criteria: Minimum acceptance of attendance in the course is 75%

Assessment Schedule

Assessment 1	Term exam: at the end of the 1st term
Assessment 2	Final written exam: at the end of the year
Assessment 3	Structured Oral & structured practical exam: at the end of the year
Assessment 4	Student self activity (student presentation)

Weighting of Assessments

Mid year MCQ exam	50 marks	(16.6%)
Log book	5 marks	(1.7%)
Student activity	5 marks	(1.7%)
Final written Examination	150 marks (including 20 marks MCQ in each written paper)	(50%)
Final structured practical Examination	60 marks	(20%)
Final structured oral Examination	30 marks	(10 %)
Total	300 marks	(100%)

7– List of References:

6.1- Course Notes:	Pathology by professors of department
6.2- Essential Books (Text Books)	Robbin's basic pathology text book of pathology
6.3- Recommended Books	Concise pathology & Pathology Illustrated
6.4- Periodicals, Web Sites	www.pathmax.com, …etc

8 – Facilities Required for Teaching and Learning:

1. Lecture hall is the museum of pathology department.
2. The slide sections are taken in small and large student labs in pathology department.
3. The museum sessions are taken in the museum of pathology department.
4. Libraries containing recent books
5. Archive containing paraffin blocks & slides essential for preparation of students' slides
6. Students' labs. with one microscope for every student
7. Pathology museum with jars for common lesions
8. Website
9. Audiovisual aids in the form of computers and data show; one data show present in each lab & one in the museum.
10. Pathology dissection labs. In the Faculty of Medicine, Gastro-Enterology Center and Oncology Center

Course Coordinator : Dr. Mona Younis Youssef (lecturer of pathology)

Head of Department : Prof. Dr. Khaled Zalata