

Course Specification of Introduction to Pathology

Faculty : Medicine and health sciences

Department: Basic Sciences

Program : Bachelor of Medicine and Surgery

I. General information about the course instructor:							
Name	More than 3	Office Hours(3 Hours Weekly)					
Location & phone number	-	Sat	Sun	Mon	Tue	Wed	Thu
Email	-						

II. General information about the course:							
1.	Course Title :	Introduction to Pathology					
2.	Course Code and Number :	BMD15					
3.	Credit Hours :	Credit Hours					Total
		Theoretical	Seminar / Tutorial	Practical	clinical	Training	
		6	-	2	-	-	8
4.	Study Level and Semester:	2nd year/ 1st semester					
5.	Pre-requisites :	Introduction to Histology					
6.	Co-requisites:	None					
7.	Program in which the course is offered:	Bachelor of Medicine and Surgery					
8.	Teaching Language:	English					
9.	Instruction location:	University of Science and Technology, Sana'a					

III. Course Description

This is a course of pathology. It contains introduction of general pathology include cellular, tissue and organs changes in response to injury, acute and chronic inflammation, circulatory disorders, principles of medical genetic disorders and neoplasms, definitions, classifications, carcinogenesis, clinical effects and laboratory diagnosis.

In addition it also includes the science of microbiology providing the medical student the general knowledge about morphology and pathogenesis of bacteria, parasites, virus, and fungi with method for identification in the laboratory. This course also include basic concepts of immunology including immune responses to infections, tumors, transplantation and immune disorders include hypersensitivity, autoimmune diseases, and immune deficiency diseases.

IV. Course Aims:

This course aims to -

- 1- Provide a foundation of basic pathologic principles necessary for understanding etiologies of cell injury, mechanisms, and morphological changes in cells, and tissue of the body with the basic knowledge about neoplasms.
- 2- Understand the cellular responses to injury such as immune response, inflammation, repair.
- 3- Acquire the skill of describing diseased tissue at cellular and organ levels gross and under microscope.
- 4- Apply the proper tools as microscope and culture Media for identification the general morphology of microbes, bacteria, parasites, virus and fungi that commonly affected the human body tissues.

V. Course Intended Learning Outcomes (CILOs):

1. Mention and describe the pathologic principles necessary for understanding etiologies of cell injury, mechanisms, and morphological changes in cells, and tissue of the body and understanding the cellular responses to injury such as immune response, inflammation, repair and hemodynamic.
2. Demonstrate and understanding the etiology and pathogenesis of diseases and its effect in the body.
3. Integrate the pathological changes and laboratory findings with clinical manifestations to reach a provisional diagnosis.
4. Apply the biochemical, microbiological and immunological laboratory tests used for the diagnosis.
5. Recognize the macroscopic and microscopic features of diseased tissue mainly in neoplasms to reach differential diagnosis.
6. Work effectively in team through the laboratory procedures and dealing with pathology specimen.
7. Identify learning needs for personal and professional development with effective learning new things on field of pathology.

VI. . Course Contents

First : Theoretical Aspect

No.	Course Topics/Units	Sub-topics	No. of lectures	Contact Hours
1	Pathology	<ul style="list-style-type: none"> - Cell injury and adaptation. - Acute and chronic inflammation - Healing and wound repair - Hemodynamic disorders- Edema, congestion, hemorrhage, thrombosis, embolism, infarction and shock - Neoplasm, classification, carcinogenesis, characters, effect and diagnosis. - Principle of genetic and genetic disorders 	13	26
2	Immunology	<ul style="list-style-type: none"> - Non-specific immunity and specific immunity - Immune cells, antigens, immunoglobulin, histocompatibility complex, cytokines. - Hypersensitivity reaction, transplantation and transplant rejection. - Autoimmune diseases. - Immunodeficiencies diseases and AIDS. 	10	20
3	Microbiology	<ul style="list-style-type: none"> -Bacterial morphology, structure, physiology and pathogenesis.. -Methods for identification of bacteria. -Host-parasite relationship. -Sterilization, disinfection and antiseptics. -Antimicrobial chemotherapy. -Introduction to virology. -General properties of virus. -Cultivation of viruses -Virus replication - Morphology of fungi, classification, identification. 	12	24
4	Parasitology	<ul style="list-style-type: none"> - Definition of parasitic terminology 	10	20

		-Parasite taxonomy -Description of different groups & types of parasites -Host parasite relationship & effect of parasite on the host -Source and mode of Infection		
Total			45	90 hr = 6 CH

Second: Practical/Tutorial/Clinical Aspects			
No.	Practical/Tutorial/Clinical topics	No. of labs	Contact Hours
1	Pathology laboratory – Gross and microscopic pictures of: - Cell injury, necrosis, pigments, calcification. - Acute inflammation, chronic inflammation, chronic granulomatous inflammation. - Granulation tissue, wound healing. - Pulmonary edema, brain edema. - Congestive heart, liver congestion - Hemorrhage, brain hemorrhage. - Thrombosis, atherosclerosis, embolism, infarction. - Neoplasms – benign – malignant Carcinoma, sarcoma. - Genetic diseases such as storage diseases	9	18
2	Immunology - Blood group - Cross matching - Agglutination- Pregnant test – ASO titer- Rheumatic factors – Detection of antigen – detection of antibody.	7	14
3	Microbiology – Gram stain – Z.N staining- Culture media – Isolation and culturing of bacteria – Interpretation of culture media – Culture and antimicrobial sensitivity – Identification of gram positive and gram negative bacteria - Isolation of fungi, culture and identification	9	18
4	Parasitology: Microscopic – identification of protozoal parasite - Entamoeba	5	10

	histolytica, Malaria, Leishmania, Girdia, Trichmonas Macroscopic and microscopic identification of Helminths – Schistosoma, Cestode, Ascaris, Entrobilus, Trichuris, other nematodes.		
Total		30	60hr =2 CH

العميد :

رئيس القسم :