

Course Syllabus Histo-pathology technique

Faculty : Faculty of Medicine and Health Sciences.

Department: Health science.

Program : Bachelor in Medical laboratory

I. General information about the course instructor :

Name	Mogahid Yahya Nassar	Office Hours(٢ Hours Weekly)					
Location & phone number	5202	Sat	Sun	Mon	Tue	Wed	Thu
Email	Mogahidnassar@yahoo.com				√		

II. General information about the course:

1. Course Title :	Histo-pathology technique				
2. Course Code and Number :	BML365				
3. Credit Hours :	Credit Hours				Total
	Theoretical	Seminar/Tutorial	Practical	Training	
	-	-	1	-	1
4. Study Level and Semester:	3 rd year /2 nd semester				
5. Pre-requisites:	BML351& BML122				
6. Co-requisites:	None				
7. Program in which the course is offered:	Bachelor in Medical laboratory				
8. Teaching Language:	English				
9. Instruction location:	University of Science and Technology, Sana'a				

عميد الكلية:
د. عبد الله المخلافي

رئيس القسم:
د. عبد الحبيب ردمان

٢٢/٩

جامعة العلوم والتكنولوجيا
إدارة ضمان الجودة والاعتماد
مُعْتَمَد
المراجع :
د. ادیب صالح

الموصف:
د. مجاهد نصار

III. Course Description

The course deals with the study of the histological techniques essential in the production of histological slides for the diagnosis of diseases including special staining procedures. The students will acquire the practical skills and experiences in different tissue preparation steps and deals with different tumors of histopathology lab. The course also deals the study and identification of cells in the diagnosis of diseases using cytological techniques. The teaching strategies will include lectures, self-learning and assignment. The students will be evaluated through report, written exam and practical exam.

IV. Course Aims: This course is aimed to:

1. Enable the students understand the principles and tissue preparation steps for diagnosis different tumors under light microscopy of histopathology lab.
2. Allow the understand to know structure, classification and characteristic of basic human tissues types.
3. Learn the students the gross structure of human organs.
4. Provide the students with the skills of managements and solving problems during practical training.
5. Understand preparation of different solutions and stains.
6. Make the students able to deals with machines and equipment of histopathology lab.

V. Course Intended Learning Outcomes (CILOs) : at the end of this course the students must be able to:

- 1- .State the theoretical knowledge for the recognition, preparation and staining of tissue sections using a variety of protocols commonly routinely used in histology.
- 2-.Recognize and describe the regulatory and safety procedures for specimen reception, identification and handling in anatomical pathology. This includes the understanding of quality assurance and quality control measures in Anatomical pathology laboratories.
- 3- Describe step-by-step procedure in tissue preparation.
- 4-. Acquire the necessary skills required in the preparation of slides for microscopic examination of tissues from fresh state to mounted state.
- 5- Recognize the concepts of quality assurance program in Histopathology laboratory.
- 6- Demonstrate a general knowledge of the principles and procedures involved in the collection, processing, cytopreparation, screening, interpretation and reporting of common cytology

specimens. This includes the use of ancillary testing.

7- Apply basic knowledge to the aetiology, pathogenesis, pathology, histology and cytology to Interpret and describe the morphological features found in specimens.

8- Interpretate results of frequently/routinely performed staining procedures applied to tissue sections;

9- Manifest the following values: honesty, critical thinking, empathy and value for life .

VI. Course Contents

Theoretical and Practical Aspects

No.	Course Topics/Units	Sub-topics	Week	Contact Hours
1	Collection and handling of histological specimens	Types of specimens Collection , Handling and Preservation of Specimen	1st	2
2	Samples and Fixatives	Fixation; Introduction, reagents Definition of micro-anatomical, cytological, histochemical, samples and compound fixative Advantages and disadvantages of miscellaneous fixative	2 nd	2
3	Fixation of gross specimens	Central nervous system, heart, liver etc Biopsy ,block processing by vapour, post- chromatization and freeze dry	3 rd ,4 th	4
4	Decalcification	Definition, techniques, Section/ tissues to be calcified bones, teeth and calcified tissue Assessment of decalcification process	5 th ,6 th	4
5	Decalcification solution	Advantage and disadvantages Ion exchange resin, chelating agents, electrophoretic decalcification Dehydration Alcohol method, dioxane method	7 th	2
	Mid exam		8 th	2

الموافق : APPROVED

المراجع :

الموافق :

6	Clearing,	Procedure of cleaning by Xylene, benzene, toluene, chloroform, cedar oil and others	9 th , 10 th .	4
7	Impregnation	Paraffin wax, parablax, parablax plus, Techniques of impregnation	11 th , 12 th , 13 th	6
8	Embedding ,Blocking out	Vacuum embedding oven, assembly of apparatus Casting or blocking out Moulds-different types Leuchard, plastic ice tray, paper boats, plastic embedding knife, tissue tek. Techniques for embedding. Gelatin, cellodine and low viscosity nitrocellulose	14 th , 15 th	4
9	Final Exam		16 th	2
Total number of weeks and hours			16	32

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الموصف :