

## Course Syllabus of Field Training in Histo-pathology

**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(2 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 :	Field Training in Histo-pathology				
2. Course Code and Number :	BML484				
3. Credit Hours :	Credit Hours				Total
	Theoretical	Seminar/Tutorial	Practical	Training	
	-	-	1	-	1
4. Study Level and Semester:	4 <sup>th</sup> year /2 <sup>nd</sup> semester				
5. Pre-requisites:	None				
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 ردهان

١٢/٨

جامعة العلوم والتكنولوجيا  
إدارة ضمان الجودة والاعتماد  
مراجعة  
APPROVED

الموصف:  
د. مجاهد نصار

### III. Course Description

This course provides undergraduate medical laboratory students with the field training required for the performance of different tissue preparation steps and deals with different tissues and specimens in the histopathology lab. The teaching strategies will include practical demonstrations, applications, small group discussion and assignment. The students will be evaluated through report, written exam and practical exam.

### IV. Course Aims:

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

### V. Course Intended Learning Outcomes (CILOs) :

- 1-Recognize the ethics and steps required for the receiving histopathology specimens from patients
- 2- Describe the best approaches for the collection, preservation and transport of clinical specimens for histopathology .
- 3- Recognize different staining and special techniques for the histopathologyl specimens as well as their advantages and disadvantages.
- 4- Acquire the necessary skills required in the preparation of slides for microscopic examination of tissues from fresh state to mounted state.
- 5- Decide on choosing the best cost-effective approaches for the preparation of the different histopathological specimens.
- 6- Apply rules and guidelines related to safety precautions in the laboratory to work in a risk-free environment.
- 7- Demonstrate a general knowledge of the principles and procedures involved in the collection,

processing, cytopreparation, and screening of common cytology specimens.

8- Perform special staining and diagnostic techniques for the histopathological specimens.

9-Work independently or as a team member and effectively communicate with the teaching staff and colleagues to identify, analyze and understand emerging issues.

## VI. Course Contents

### Theoretical and Practical Aspects

No.	Course Topics/Units	Sub-topics	No. of Weeks	Contact Hours
1	Training on the concepts of quality control	Pre-analysis; analysis; post-analysis.	1 <sup>st</sup>	2
2	Data collection tools/ instruments	Types of data collection Filling forms with patient's data	2 <sup>nd</sup>	2
3	Collection and labeling of specimens	Types of sample	3 <sup>rd</sup>	2
4	Fixation and Preservation of specimens.	Advantages and disadvantages of miscellaneous fixative	4 <sup>th</sup>	2
5	Transportation and Processing of Specimens	Central nervous system, heart, liver etc Biopsy ,block processing by vapour, post- chromatization and freeze dry	5 <sup>th</sup> ,6 <sup>th</sup> ,7 <sup>th</sup>	6
6	<b>Decalcification</b>	<b>Decalcification solution, techniques,</b> Assessment of decalcification process	8 <sup>th</sup>	2
7	Clearing:	Procedure of cleaning by Xylene, benzene, toluene, chloroform, ... etc.	9 <sup>th</sup>	2
8	<b>Impregnation</b>	Paraffin wax, parablax, parablax plus, Techniques of impregnation	10 <sup>th</sup>	2
9	<b>Embedding ,Blocking out</b>	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, cellodin and low viscosity nitrocellulose	11 <sup>th</sup>	2
10	Section cutting		12 <sup>th</sup>	

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الموصف: معتمد المراجع:

APPROVED