



Course Syllabus of Diagnostic Microbiology

Faculty: Medicine and Health sciences

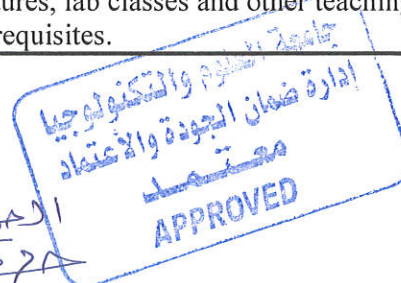
Department: Health sciences

Program: Bachelor in Laboratory medicine

I. General information about the course instructor :							
Name	Dr.Rua'a Assayaghi	Office Hours(2 Hours Weekly)					
Location & phone number	777259096	Sat	Sun	Mon	Tue	Wed	Thu
Email	Rowamohammed2010@yahoo.com			2			

II. General information about the course:						
1.	Course Title :	Diagnostic Microbiology				
2.	Course Code and Number:	BML473				
3.	Credit Hours :	Theoretical	Tutorial	Practical	Training	Total
		2		3		5
4.	Study Level and Semester:	4 th year/ 1 st semester				
5.	Pre-requisites :	BML243, BML354				
6.	Co-requisites :	None				
7.	Program in which the course is offered:	Bachelor in Laboratory medicine				
8.	Teaching Language:	English				
9.	Instruction location:	University of Science and Technology, Sana'a ,Yemen				

III. Course Description	
<p>Diagnostic microbiology provides students with knowledge on laboratory methods used to diagnose pathogens in clinical specimens. The course is designed to teach students how to collect clinical specimens from patients, culturing and identification of the most probable pathogens. It also focuses on testing the isolated pathogens for their antibiotics susceptibility in vitro. Practical part involves specimen culturing and performance tests required for pathogens identification and antibiotic susceptibility testing. Lectures, lab classes and other teaching strategies are used. Medical bacteriology I and Medical bacteriology II are prerequisites.</p>	



ر عميد الكلية:
د. عبد الله الحظافي

رئيس القسم: ١٢ / ٨
د. عبد الحبيب عثمان

المراجع:
د. أروى عثمان
د. محمد الشميري

الموصف:
د. روى السباغي

IV. Course Aims

this course aimed to:

1. Inform the student about different types of the clinical specimens.
2. Teach students the suitable techniques to collect appropriate specimens from patients.
3. Provide students with knowledge about the most common pathogens in each specimen .
4. Train the student how to use biochemical and serological tests for diagnosis of the isolated microbe.
5. Enable students to understand the methods for diagnosis of different types of uncommon pathogens.
6. Make the students capable to determine the suitable antibiotics to be used in the sensitivity testing.

V. Course Intended Learning Outcomes (CILOs)

After completing this course, students would be able to:

1. Describe different types of clinical specimens and the principles of biochemical tests used to identify isolated pathogen.
2. Recognize proper methods for collection of microbiology clinical samples and avoid decontamination .
3. Choose the suitable specimens for lab diagnosis.
4. Create a chart for laboratory diagnosis of common pathogens.
5. Integrate the microbiology lab result with the clinical and other lab results.
6. Collect the required sample carefully and correctly.
7. Transport and storage microbiology samples in appropriate conditions.
8. Perform specimens culturing , staining and antimicrobial sensitivity testing.
9. Carry out and read different biochemical tests required for identification of isolated pathogens.
10. Apply the principles of immunological and molecular techniques for the diagnosis of infectious diseases.
11. Respect academic/medical staff and colleagues and appreciate different views and team work.

VI. Course Contents

Theoretical Aspect:

No.	Course Units	Sub-topics	Week due	Contact Hours
1	General sample collection techniques	Deal with different types of specimens, transportation and storage of specimens	1 st	1
2	Nasal swab	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	2 nd	1
3	Ear, eye swab	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	3 rd	1
4	Oral cavity & throat swab	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	4 th .5 th	2
5	Skin swab	Collection, cultivation, transportation, identification and susceptibility testing of isolated	6 th	1

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المراجع:

د.أروى عثمان

د.محمد الشميري

الموصف:

د. رؤى السبياعي

		pathogen		
6	Genital swab	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	7 th	1
7	Mid Exam	Written exam	8 th	1
8	Urine specimen	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	9 th	1
9	Stool specimen	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	10 th ,11 th .12 th	1
10	CSF	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	13 th	1
11	Synovial fluid	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	14 th	1
12	Pus	Collection, cultivation, transportation, identification and susceptibility testing of isolated pathogen	15 th	1
13	Final exam	Written exam	16 th	1
Total number of weeks and hours			16	16

Second: Practical/Tutorial/Clinical Aspects :

No.	Practical/Tutorial/Clinical topics	No. of Weeks	Contact Hours
1.	Nasal swab	2 nd	2
2.	Ear, eye swab	3 rd	2
3.	Oral cavity & throat swab	4 th	2
4.	Skin swab	5 th	2
5.	Genital swab	6 th	2
6.	Urine specimen	7 th	2
7.	Stool specimen	8 th ,9 th ,10 th	6
8.	CSF	11 th .	2
9.	Body fluid	12 th	2
10.	Pus	13 th	2
11.	Sputum	14 th	2
12.	Practical exam	15 th	2
Total number of weeks and hours			30



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المراجع :
د. أروى عثمان
د. محمد الشميري

الموصف :
د. رؤى السياغي