

Course Syllabus of Medical Bacteriology II

Faculty : Medicine and Health Sciences

Department : Health Sciences

Program : Bachelor in Medical Laboratories

I. General information about the course instructor :							
Name	Dr.Rua'a Assayaghi	Office Hours(2 Hours Weekly)					
Location & phone No.	777259096	Sat	Sun	Mon	Tue	Wed	Thu
Email	Rowamohammed2010@yahoo.com			2			

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

عميد الكلية:
د. عبد الله المخلافي

رئيس القسم: ١٣ / ٨
د. عبد الحبيب رهمان

جامعة العلوم والتكنولوجيا
إدارة ضمان الجودة والاعتماد
معتمة
APPROVED

المراجع:
د. أروى عثمان
د. محمد الشميري

الموصف:
د. رؤى السباغي

III. Course Description

Medical Bacteriology I course aims to make students acquainted with Gram negative bacteria. It focuses on species of medical importance, their morphology, normal habitat, diseases they cause, mode of transmission, pathogenesis, principles of lab diagnosis, treatment and prevention. Practical section involves common procedures used to identify Gram negative bacteria such as microscopic staining, culturing and biochemical tests. Lectures, lab classes and other teaching strategies are used. Medical Bacteriology I is a prerequisite.

IV. Course Aims to:

1. Provide students with knowledge about species of each Gram negative genera, diseases they cause, mode of transmission.
2. Enable students to understand the mechanism of pathogenesis, virulence factors, and control measures.
3. Teach students how to perform laboratory techniques used to diagnose Gram negative bacteria.
4. Enable students to practice quality control and quality assurance in microbiology lab.

V. Course Intended Learning Outcomes (CILOs) :

1. Describe species of medical importance in each genera.
2. State the normal habitat and source of infection by Gram negative bacteria .
3. Describe the mechanism of pathogenesis for each Gram negative species.
4. State the principle of tests used for diagnosis of Gram negative bacteria.
5. Choose suitable culture media and biochemical tests for identification of Gram negative bacteria.
6. Create a diagram to distinguish between different types of Gram negative bacteria.
7. Correlate the virulence factors with the pathogenicity of each Gram negative species.
8. Perform gram staining smears ,other bacterial smears, culturing and different biochemical tests for each Gram negative species.
9. Write reports for isolated Gram negative bacteria.
10. Use equipment and instruments for identification of Gram negative bacteria.
11. Apply lab safety to prevent contamination and spreading of infections to lab workers and to the community.
12. Respect academic/medical staff , colleagues and patient's right of privacy .



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المراجع :

د.أروى عثمان

د.محمد الشميري

الموصف :

د. رؤى السياغي

VI. Course Contents				
Theoretical Aspect:				
No.	Course Units	Sub-topics	Week due	Contact Hours
	Gram negative cocci	- Neisseria	1 st	2
	Enterobacteriaceae	- Lactose fermenters	2 nd , 3 rd	4
		- Lactose non-fermenters	4 th , 5 th , 6 th	6
	Gram negative non-fermenter rods	Pseudomonas, Stenotrophomonas, Burkholderia	7 th	2
	Mid exam	Written exam	8 th	2
	Vibrionaceae	- Vibrio, Aeromonas, Plesiomonas	9 th , 10 th	2
	Campylobacteraceae Helicobacteraceae	- Campylobacter - Helicobacter	11 th	2
	Gram negative coccobacilli	- Hemophilus - Bordetella	12 th	2
	Zoonotic gram negative bacilli	- Yersinia - Brucella	13 th	2
	Fastidious gram negative bacilli	Legionella		
	Spirochaetes	Treponema - Borrelia Leptospira	14 th	2
	Mycoplasmataceae	Mycoplasma - Ureaplasma	15 th	2
	Chlamydiaceae Rickettsiaceae	Chlamydia - Rickettsia		
	Final exam	Written exam	16 th	2
Total number of weeks and hours			16	32

Second: Practical/Tutorial/Clinical Aspects :			
No.	Practical/Tutorial/Clinical topics	No. of Weeks	Contact Hours
1.	Neisseria	2 nd	4
2.	Lactose fermenters rods	3 rd , 4 th	2
3.	Lactose non-fermenters	5 th , 6 th , 7 th	6
4.	Pseudomonas and other non-fermenter rods	8 th	2
5.	Hemophilus	9 th	2
6.	Vibrio and Aeromonas	10 th , 11 th	4
7.	Final exam	12 th	2
Total number of weeks and hours		11	22



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