

## Course Syllabus for Medical Bacteriology

Faculty: Medicine and Health Science  
Department: Health sciences  
Program: Bachelor of Medical Laboratories

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	We d
Email	Rowamohammed2010@yahoo.com			2		

II. General information about the course:					
1. Course Title :	Medical Bacteriology I				
2. Course Code and Number :	BML243				
3. Credit Hours :	Theoretical	Seminar/Tutorial	Practical	Training	Total
	2		1		3
4. Study Level and Semester:	2 <sup>nd</sup> year/ 1 <sup>st</sup> semester				
5. Pre-requisites:	BML232				
6. Co-requisites :	None				
7. Program in which the course is offered:	Bachelor of Medical Laboratories				
8. Teaching Language:	English				
9. Instruction location:	University of Science and Technology, Sana'a ,Yemen				

III. Course Description	
<p>Medical Bacteriology I course makes students acquainted with gram positive 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 positive bacteria such as microscopic staining, culturing and biochemical tests. Lectures, lab classes and other teaching strategies are used. Basic bacteriology, basic immunology, physiology and anatomy are prerequisites.</p>	

عميد الكلية  
د. عبد الله المخلافي

رئيس القسم:  
د. عبد الكبيير ردمان

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المراجع:  
د. أروى عثمان  
د. محمد الشميري

الموصف:  
د. رؤى السباغي

APPROVED



#### IV. Course Aims

This course is aimed to:

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

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

After the end of this course the student would be able to:

1. Describe species of medical importance in each genera.
2. State the normal habitat and source of infection by Gram positive bacteria and the diseases they cause.
3. Describe the mechanism of pathogenesis and the principle of tests used for diagnosis for each Gram positive species.
4. State the principles of microbial control.
5. Choose suitable culture media and biochemical tests for identification of Gram positive bacteria.
6. Create a diagram to distinguish between different types of Gram positive bacteria.
7. Correlate the virulence factors with the pathogenicity of each Gram positive species.
8. Perform gram staining smears ,other bacterial smears, culturing and different biochemical tests for each Gram positive species.
9. Write reports for isolated Gram positive bacteria.
10. Use equipment and instruments for identification of Gram positive 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 .

#### VI. Course Contents

Theoretical Aspect:

No.	Course Units	Sub-topics	Week due	Contact Hours
1	Review of Basic bacteriology	- Bacterial structure - classification and staining	1 <sup>st</sup>	2
2	Gram positive cocci Staphylococci	- Coagulase positive staphylococci - Coagulase negative staphylococci	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
3	Gram positive cocci Streptococci and enterococci	- Beta hemolytic streptococci - Alpha-hemolytic streptococci - Non-hemolytic streptococci	4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup>	6

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4	Gram positive rods non-spore forming	- Corynebacterium - Listeria	7 <sup>th</sup> ,8 <sup>th</sup>	2
5	Mid exam	Written exam	9 <sup>th</sup>	2
6	Gram positive rods Spore forming	- Bacillus	10 <sup>th</sup>	2
7		- Clostridium	11 <sup>th</sup> ,12 <sup>th</sup>	4
8	Gram positive branched rods	- Actinomyces and Nocardia	13 <sup>th</sup>	2
9	Acid fast bacilli	- Mycobacteria	14 <sup>th</sup> ,15 <sup>th</sup>	4
10	Final exam	- Written exam	16 <sup>th</sup>	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.	Staphylococci	2 <sup>nd</sup> ,3 <sup>rd</sup>	4
2.	Streptococci	4 <sup>th</sup> ,5 <sup>th</sup> ,6 <sup>th</sup>	6
3.	Corynebacterium	7 <sup>th</sup>	2
4.	Listeria	8 <sup>th</sup>	2
5.	Bacillus	9 <sup>th</sup>	2
6.	Clostridium	10 <sup>th</sup>	2
7.	Mycobacterium	11 <sup>th</sup> ,12 <sup>th</sup>	4
8.	Final exam	13 <sup>th</sup>	2
Total number of weeks and hours		12	24

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مستند  
مصدق  
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