



# Course Book

<p><b>Course Description</b></p>	<p>This course, which consists of (2) hours theoretical lecture &amp; (2) hours laboratory practices per week, provides an overview of medically important bacterial species. Emphasis is placed upon their morphological and physiological characteristics, classification &amp; their relationship to human health and infections. Practical lessons will endeavor to provide the student with the most comprehensive experiences on standard methods used to identify various bacterial species.</p>			
<p><b>Course objectives</b></p>	<p>This course is prepared to provide a comprehensive understanding about the medically significant bacterial species and the routine identification methods used in medical laboratories. As well as the principles behind antibacterial chemotherapies.</p>			
<p><b>Student's obligation</b></p>	<p>The role of students and their obligations throughout the academic year are:</p> <ul style="list-style-type: none"> <li>• Preparing for class (attendance, quizzes, reports, seminars and exams).</li> <li>• Willing to work hard to complete course activities.</li> <li>• Willing to bring their life experiences into the class to enrich discussions.</li> <li>• Matching deadlines for submitting their homeworks and other assignments.</li> </ul>			
<p><b>Required Learning Materials</b></p>				
<p><b>Evaluation</b></p>	<p><b>Task</b></p>	<p><b>Weight (Marks)</b></p>	<p><b>Due Week</b></p>	<p><b>Relevant Learning Outcome</b></p>
<p>Paper Review</p>				
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Assignments</p>	<p>Homework</p>	<p><b>5%</b></p>		
	<p>Class Activity</p>	<p><b>2%</b></p>		
	<p>Report</p>	<p><b>10%</b></p>		
	<p>Seminar</p>			
	<p>Essay</p>			
<p>Project</p>				
<p>Quiz</p>		<p><b>8%</b></p>		

	Lab. Reports & activity	<b>10%</b>		
	Midterm Exam	<b>25%</b>		
	Final Exam	<b>40%</b>		
	Total	<b>100%</b>		
<b>Specific learning outcome:</b>	<p>At the conclusion of this course the student should be able to demonstrate the following outcomes:</p> <ol style="list-style-type: none"> <li>1. Demonstrate an understanding of the basic concepts of bacteriology including terminology.</li> <li>2. Demonstrate an understanding of the characteristics of various bacterial species.</li> <li>3. Organize a bacterial identification system.</li> <li>4. Identify bacterial species commonly noted in medical laboratories.</li> <li>5. Demonstrate basic laboratory skills for diagnosis of different bacterial species.</li> </ol>			
<b>Course References:</b>	<ol style="list-style-type: none"> <li>1. Jawetz, Melnick &amp; Adelberg's Medical Microbiology. (2019). 28th ed., Mc Graw Hill Medical.</li> <li>2. MURRAY, P.R. (2018). Basic Medical Microbiology. Elsevier.</li> <li>3. Kamel,F. And Jarjes,S. (2015). Essentials of Bacteriology and Immunology.</li> <li>4. Greenwood, D.; Slack, R.; Peutherer, J. and Barer, M. (2007). Medical Microbiology, 17th ed.,Elsevier.</li> </ol>			
<b>Course topics (Theory)</b>		<b>Week</b>	<b>Learning Outcome</b>	
<b>General introduction to bacteriology &amp; Syllabus Review.</b>		1	1	
<i>Staphylococci</i>		2	1,2,3	
<i>Streptococci</i>		3	1,2,3	

<i>Bacillus spp. &amp; Clostridium spp.</i>	4	1,2,3
<i>Listeria monocytogenes &amp; Corynebacterium spp.</i>	5	1,2,3
<i>Neisseria spp.</i>	6	1,2,3
<b>Enteric bacteria</b>	7	1,2,3
S4-Mid Term Exam	8	1,2,3
<i>Pseudomonas spp.</i>	9	1,2,3
<i>Brucella spp.</i>	10	1,2,3
<i>Vibrio cholerae</i>	11	1,2,3
<i>Campylobacter spp.</i>	12	1,2,3
<i>Helicobacter pylori</i>	13	1,2,3
<i>Mycobacterium spp.</i>	14	1,2,3
S4-Final Exam- Preparation (First trial)	15	1,2,3
S4-Final Exam	16	1,2,3
<b>Practical Topics</b>	<b>Week</b>	<b>Learning Outcome</b>
<i>Staphylococci</i>	1	4,5
<i>Streptococci</i>	2	4,5
<i>Bacillus spp. &amp; Clostridium spp.</i>	3	4,5
<i>Listeria monocytogenes &amp; Corynebacterium spp.</i>	4	4,5
<i>Neisseria spp.</i>	5	4,5
<b>Enteric bacteria</b>	6	4,5
<b>Enteric bacteria</b>	7	4,5
S4-Mid Term Exam	8	4,5
<i>Pseudomonas spp.</i>	9	4,5

<i>Brucella spp.</i>	10	4,5
<i>Vibrio cholerae</i>	11	4,5
<i>Campylobacter spp.</i>	12	4,5
<i>Helicobacter pylori</i>	13	4,5
<i>Mycobacterium spp.</i>	14	4,5
S4-Final Exam- Preparation (First trial)	15	4,5
S4-Final Exam	16	4,5

### Questions Example Design

1. Multiple choices
2. Compositional questions:
  - What ?
  - How ?
  - Why ?
3. Open-end: Fill in the blanks
4. Enumeration
5. True and false: Answer True (T) or False (F) about each of the following statements & correct the false statements

### Extra notes:

### External Evaluator