



## UNIVERSITI TEKNOLOGI MARA

### CSI161: FUNDAMENTALS OF MICROBIOLOGY

<b>Course Name (English)</b>	FUNDAMENTALS OF MICROBIOLOGY <b>APPROVED</b>		
<b>Course Code</b>	CSI161		
<b>MQF Credit</b>	3		
<b>Course Description</b>	This introductory course provides a detailed study of Clinical Microbiology theory, laboratory methodology and techniques. Emphasis is on the properties and characteristics of organisms, the effects of antimicrobial agents and the concepts of infectious disease in humans.		
<b>Transferable Skills</b>	Cognitive and Psychomotor		
<b>Teaching Methodologies</b>	Lectures, Blended Learning, Lab Work, Demonstrations, Practical Classes, Web Based Learning, Problem Based Learning (PBL), Presentation		
<b>CLO</b>	<p>CLO1 Describe the safety procedures in accordance with standard precaution.</p> <p>CLO2 Discuss the host-parasite interaction, bacterial cell structure, physiology, metabolism, genetics and principles associated with antimicrobial susceptibility testing.</p> <p>CLO3 Perform the basic skill of microbiological techniques, microscopic methods of examination, Kirby-Bauer susceptibility testing, to prepare growth media, and maintaining stock bacterial and fungal cultures.</p>		
<b>Pre-Requisite Courses</b>	No course recommendations		
<b>Reading List</b>	<table><tr><td><b>Recommended Text</b></td><td><ul style="list-style-type: none"><li>• Vandepitte J., World Health Organization 2003, <i>Basic Laboratory Procedures in Clinical Bacteriology</i>, World Health Organization [ISBN: 9241545453]</li><li>• Saroj K. Mishra, Dipti Agrawal 2012, <i>A Concise Manual of Pathogenic Microbiology</i>, John Wiley &amp; Sons [ISBN: 978111830]</li><li>• Kenneth Ryan, C. George Ray, Nafees Ahmad, W. Lawrence Drew, James Plorde 2014, <i>Sherris Medical Microbiology, Sixth Edition</i>, McGraw Hill Professional [ISBN: 9780071818261]</li><li>• Michael J. Leboffe, Burton E. Pierce, <i>Brief Microbiology Laboratory &amp; Application</i>, MORTON PUBLISHING [ISBN: 9780895829474]</li><li>• Karin C. VanMeter, Robert J. Hubert 2015, <i>Microbiology for the Healthcare Professional</i>, Elsevier Health Sciences [ISBN: 9780323320924]</li><li>• John Lammert 2007, <i>Techniques in Microbiology</i>, Prentice Hall [ISBN: 9780132240116]</li><li>• Sankar Apurba Sastry, Sandhya Bhat 2015, <i>Essentials of Medical Microbiology</i>, Jaypee Brothers, Medical Publishers Pvt. Limited [ISBN: 9789351529873]</li><li>• John Harley 2016, <i>Laboratory Exercises in Microbiology</i>, McGraw-Hill Education [ISBN: 9781259657573]</li><li>• Gerard J. Tortora, Berdell R. Funke, Christine L. Case 2001, <i>Microbiology</i>, Benjamin-Cummings Publishing Company [ISBN: 9780805375435]</li></ul></td></tr></table>	<b>Recommended Text</b>	<ul style="list-style-type: none"><li>• Vandepitte J., World Health Organization 2003, <i>Basic Laboratory Procedures in Clinical Bacteriology</i>, World Health Organization [ISBN: 9241545453]</li><li>• Saroj K. Mishra, Dipti Agrawal 2012, <i>A Concise Manual of Pathogenic Microbiology</i>, John Wiley &amp; Sons [ISBN: 978111830]</li><li>• Kenneth Ryan, C. George Ray, Nafees Ahmad, W. Lawrence Drew, James Plorde 2014, <i>Sherris Medical Microbiology, Sixth Edition</i>, McGraw Hill Professional [ISBN: 9780071818261]</li><li>• Michael J. Leboffe, Burton E. Pierce, <i>Brief Microbiology Laboratory &amp; Application</i>, MORTON PUBLISHING [ISBN: 9780895829474]</li><li>• Karin C. VanMeter, Robert J. Hubert 2015, <i>Microbiology for the Healthcare Professional</i>, Elsevier Health Sciences [ISBN: 9780323320924]</li><li>• John Lammert 2007, <i>Techniques in Microbiology</i>, Prentice Hall [ISBN: 9780132240116]</li><li>• Sankar Apurba Sastry, Sandhya Bhat 2015, <i>Essentials of Medical Microbiology</i>, Jaypee Brothers, Medical Publishers Pvt. Limited [ISBN: 9789351529873]</li><li>• John Harley 2016, <i>Laboratory Exercises in Microbiology</i>, McGraw-Hill Education [ISBN: 9781259657573]</li><li>• Gerard J. Tortora, Berdell R. Funke, Christine L. Case 2001, <i>Microbiology</i>, Benjamin-Cummings Publishing Company [ISBN: 9780805375435]</li></ul>
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	<b>Reference Book Resources</b> <ul style="list-style-type: none"> <li>• Maria Dannessa Delost 2014, <i>Introduction to Diagnostic Microbiology for the Laboratory Sciences</i>, Jones &amp; Bartlett Publishers [ISBN: 9781284032314]</li> <li>• Connie R. Mahon, Donald C. Lehman, George Manuselis 2011, <i>Textbook of Diagnostic Microbiology</i>, Saunders [ISBN: 9781416061656]</li> <li>• Patricia M. Tille 2016, <i>Bailey &amp; Scott's Diagnostic Microbiology</i>, Mosby [ISBN: 9780323354820]</li> <li>• Lisa Anne Shimeld, Anne T. Rodgers 1999, <i>Essentials of Diagnostic Microbiology</i>, Taylor &amp; Francis US [ISBN: 9780827373884]</li> </ul>
<b>Article/Paper List</b>	This Course does not have any article/paper resources
<b>Other References</b>	This Course does not have any other resources