

Course Plan

Semester: 2	Academic Year:2025
Level:	Major: bacteriology
Course Title: Medical Bacteriology	Department: Bacteriology and Virology, School of Medicine
Course Code: 1274029	University Professor or Faculty member:
Class NO: Tadbir International Education Center, Medical University of Isfahan, Hezar-Jerib Ave., Isfahan, Iran iedu.info@mui.ac.ir +98 31 37927657-9	Credit Hours: 43
Prerequisite: General Chemistry Plus biology	Credit Units: 2.4
Availability of Professor:	Tel: +983137929078
Office Address: Department of Bacteriology and Virology	E-mail: havaei@med.mui.ac.ir
Name of Student Representative and Cellphone Number. Professor Seyed Asghar Havaei	Number of Students:

The General Purpose of the Lesson:

Designed to provide students with a clear entry to mid-level understanding of the clinical and diagnostic issues in bacteriology, the course should be used as an introduction to more advanced study in infectious diseases and clinical microbiology.

Learning Outcomes (Objectives):

Basic Bacteriology includes;

Principles of bacteriology, including structure, function, metabolism, genetics, classification of bacteria and typing methods, normal flora, interaction of bacteria with each other, hosts, and the environment, pathogenesis of bacteria and host defense, disinfection, sterilization, and mechanisms of action of disinfectants, mechanisms of action of antibiotics and bacterial resistance to antibiotics.

Clinical Bacteriology:

The primary aim of the clinical bacteriology is to provide the medical students with characteristics, pathogenesis, and epidemiology and laboratory diagnosis of pathogenic bacteria to help students to learn how to deal with the diagnosis of infectious diseases.

At each lecture the taxonomy, structure, epidemiology, virulence factors, clinical presentations of infection, diagnosis and detection, treatment and prevention are discussed for each.

Assessment Methods:

)The Assessment Methods that will be Used to Test Students Learning outcomes & the Skills & Competencies Stated in learning Outcomes)

Assessment	Score From 20
Mid Exam (Theory)	8
Final Exam	11
Assignments:	1
Total Marks	20

Main References (Text Books): Medical Microbiology 8th Edition

By Patrick R. Murray PhD (Author), Ken S. Rosenthal PhD (Author), Michael A. Pfaller MD(Author). Latest version.

References for More Reading:

Student's Responsibilities: study hard and prepare for examination

Attendance Rules:

The students should be present on all online lectures.

Department's Attitudes:

Mid Exam Date:

Final Exam Date:

	Main Topic	Teacher's Name	Time	Date
1	The History and scope of microbiology	Dr H. Shojaei	1 hour 8 – 9 AM	۱۴۰/۱۱/۱۶ ۳
2	Bacterial Structure 1	Dr A. Mirzaei	1 hour ۹ – ۱۰ AM	۱۴۰/۱۱/۱۶ ۳
۳	Bacterial Structure 2	Dr A. Mirzaei	1 hour 8 – 9 AM	۱۴۰/۱۱/۱۷ ۳
۴	Physiology and Metabolism of bacteria (Part 1)	Dr B. Nasre Esfahani	1 hour 8 – 9 AM	۱۴۰/۱۱/۲۳ ۳
۵	Physiology and Metabolism of bacteria (Part 2)	Dr B. Nasre Esfahani	۱ hours ۹ – 10 AM	۱۴۰/۱۱/۲۳ ۳
۶	Classification of Bacteria	Dr V. Karbasizadeh	1 hour 8 – 9 AM	۱۴۰۳/۱۱/۲۴
۷	Bacterial growth	Dr J.Faghri	1 hour 8 – 9 AM	۱۴۰۳/۱۱/۳۰
۸	Pathogenesis	Dr SA Havaei	1 hour 9 – 10 AM	۱۴۰/۱۱/۳۰ ۳
۹	Disinfection and Sterilization	Dr H. Fazeli	2 hours 8 – 10 AM	۱۴۰۳/۱۲/۱
۱۰	Bacterial Genetics	Dr SA Havaei	2 hours 8 – 10 AM	۱۴۰۳/۱۲/۷
۱۱	Antibiotics; Mechanisms of Action and resistance	Dr H. Fazeli	1 hour 8 – 9 AM	۱۴۰۳/۱۲/۸
۱۲	Normal flora	Dr V. Karbasizadeh	1 hour ۸ – ۹ AM	۱۴۰/۱۲/۱۴ ۳
۱۳	Gram positive cocci, Staphylococci	Dr. SA Havaei	2 hours 8 – 10 AM	۱۴۰/۱۲/۱۵ ۳

۱۴	Streptococci; Enterococcus	Dr B. Nasre Esfahani	2 hours 8 – 10 AM	۱۴۰/۱۲/۲۱ ۳
۱۵	Neisseria and Branhamella	Dr A. Mirzaei	1 hour 8 – 9 AM	۱۴۰۳/۱۲/۲۲
۱۶	Gram-positive Bacilli, Bacillus anthracis	Dr B. Nasre Esfahani	1 hour 8 – 9 AM	۱۴۰۴/۱/۱۹
۱۷	Gram-positive Bacilli, Corynebacterium	Dr A. Mirzaei	1 hour 9– 10 AM	۱۴۰۴/۱/۱۹
۱۸	Gram-positive Bacilli, Clostridia	Dr V. Karbasizadeh	1 hour 8 – 9 AM	۱۴۰۴/۱/۲۰
۱۹	Enterobacteriaceae and E. coli	Dr H. Fazeli	1 hour 8 – 9 AM	۱۴۰۴/۱/۲۶
۲۰	Shigella and Salmonella	Dr H. Shojaei	1 hour ۹ – ۱۰ AM	۱۴۰۴/۱/۲۶
۲۱	Pseudomonas and the non-fermenters	Dr H. Fazeli	1 hour ۸– ۹ AM	۱۴۰۴/۱/۲۷
۲۲	Hemophilus and other fastidious Gram-negatives	Dr J.Faghri	1 hour 8 – 9 AM	۱۴۰۴/۲/۲
۲۳	Vibrio	Dr H. Shojaei	1 hour 9 – 10 AM	۱۴۰۴/۲/۲
۲۴	Mycobacterium tuberculosis	Dr B. Nasre Esfahani	1 hour 8 – 9 AM	۱۴۰۴/۲/۳
۲۵	Atypical mycobacteria and leprosy	Dr. H. Shojaei	1 hour ۸ – ۹ AM	۱۴۰۴/۲/۹
۲۶	Legionella, Yersinia and Miscellaneous organisms	Dr J.Faghri	1 hour ۹ – ۱۰ AM	۱۴۰۴/۲/۹
۲۷	Brucella	Dr H. Shojaei	1 hour ۸ – ۹ AM	۱۴۰۴/۲/۱۰
۲۸	Campylobacter	Dr SA Havaei	1 hour 8 – 9 AM	۱۴۰۴/۲/۱۶
۲۹	Helicobacter	Dr A. Mirzaei	1 hour 9 – 10 AM	۱۴۰۴/۲/۱۶
۳۰	Treponema, Lyme disease and syphilis	Dr V. Karbasizadeh	1 hour 8 – 9 AM	۱۴۰۴/۲/۱۷

۳۱	Borrelia	Dr V. Karbasizadeh	1 hour ۸ – ۹ AM	۱۴۰۴/۲/۲۳
۳۲	Gram-positive Bacilli; Listeria	Dr H. Shojaei	1 hour ۹ – ۱۰ AM	۱۴۰۴/۲/۲۳
۳۳	Chlamydia	Dr H. Fazeli	1 hour ۸ – ۹ AM	۱۴۰۴/۲/۲۴
۳۴	Bordetella, and Francisella	Dr J.Faghri	1 hour 8 – 9 AM	۱۴۰۴/۲/۳۰
۳۵	Actinomyces	Dr H. Shojaei	1 hour ۹ – ۱۰ AM	۱۴۰۴/۲/۳۰
۳۶	Nocardia	Dr J.Faghri	1 hour ۸ – ۹ AM	۱۴۰۴/۲/۳۱
۳۷	Bacteroides and Gram- negative Anaerobes	Dr V. Karbasizadeh	1 hour 8 – 9 AM	۱۴۰۴/۳/۶
۳۸	Rickettsia's	Dr SA. Havaei	1 hour 9 – ۱۰ AM	۱۴۰۴/۳/۶
۳۹	Mycoplasma	Dr H. Fazeli	1 hour ۸ – ۹ AM	۱۴۰۴/۳/۷