

School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

MICROBIOLOGY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
MICROBIOLOGY	PHA2113084	Fall Semester	3+0	3	4
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. İlhan TAHRALI				
Name of Lecturer(s)	Assist.Prof. İlhan TAHRALI				
Assistant(s)					
Aim	The aim of the microbiology course is to give information about microorganisms which are important in medical and industrial fields.				
Course Content	This course contains; Introduction to microbiology & History of microbiology,Classification of microorganisms,Morphology of bacteria and viruses,Reproduction, genetics, and metabolism of bacteria,Bacterial infection agents,Viral and parasitary infection agents,Fungi and fungal infection agents,Immunity, hypersensitivity, immunodeficiency,Vaccines and immune serums,Microbiota,Antimicrobial chemoteraphy,Sterilization and disinfection,Microbial contamination in pharmaceutical products,Good manufacturing practices in pharmaceutical products, sterile pharmaceutical products.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1.1.Classify the microorganisms.			13, 16, 3, 9	A	
1.2.Define the morphologies of microorganisms.			13, 16, 3, 9	A	
1.3.Explain the genetics of microorganisms.			13, 16, 3, 9	A	
1.4.Explain the methabolic and physiologic aspects of microorganisms.			13, 16, 3, 9	A	
2.Discuss the modes of transmission and infection control.			13, 16, 3, 9	A	
2.1.Explain the modes of transmission.			13, 16, 3, 9	A	
2.2.Classify the sterilizasyon systems.			13, 16, 3, 9	A	
2.3.Explain the modes of disinfection.			13, 16, 3, 9	A	
2.4.Define the modes of antimicrobial chemotherapy.			13, 16, 3, 9	A	
3.Identify the immunological events.			13, 16, 3, 9	A	
3.1.Explain the immunity and immun response.			13, 16, 3, 9	A	
3.2.Explain the host immun response.			13, 16, 3, 9	A	
3.3.Define the vaccines and immunoglobulines.			13, 16, 3, 9	A	
4.Compare the infections.			13, 16, 3, 9	A	
4.1.Define the bacterial diseases.			13, 16, 3, 9	A	
4.2.Define the viral diseases.			13, 16, 3, 9	A	
4.3.Define the fungal diseases.			13, 16, 3, 9	A	
4.4.Define the parasitic diseases.			13, 16, 3, 9	A	
1. Describe the microorganisms.			13, 16, 3, 9	A	
Teaching Methods	13: Case Study Method, 16: Question - Answer Technique, 3: Problem Baded Learning Model, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam				
Lecture Schedule					
Sequenc e	Topics	Preliminary Preparation			
1	Introduction to microbiology & History of microbiology	1			
2	Classification of microorganisms	1			
3	Morphology of bacteria and viruses	1			
4	Reproduction, genetics, and metabolism of bacteria	1			
5	Bacterial infection agents	1			
6	Viral and parasitary infection agents	1			
7	Fungi and fungal infection agents	1			
8	Immunity, hypersensitivity, immunodeficiency	1			
9	Vaccines and immune serums	1			
10	Microbiota	1			
11	Antimicrobial chemoteraphy	1			
12	Sterilization and disinfection	1			
13	Microbial contamination in pharmaceutical products	1			
14	Good manufacturing practices in pharmaceutical products, sterile pharmaceutical products	1			
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources

1.Microbiology notes will be given to the students.