



**Jordan University of Science and Technology**  
**Faculty of Medicine**  
**Doctor Of Medicine (Md) Department**

MED265 General Microbiology - JNQF Level: 7

First Semester 2023-2024

**Course Catalog**

3 Credit Hours. This course provides medical students with vital microbiology information that will enable them to carry out their duties in an informed, safe, and efficient manner, and protect themselves and their patients from infectious diseases. It is appropriate as an introductory microbiology course, as it contains all of the concepts and topics needed by those students to use as a base for the microbiology of the modular systems that are going to be studied after. This course will cover a typical undergraduate microbiology topics of special importance to students of the healthcare professions include those dealing with disinfection and sterilization, antibiotics and other antimicrobial agents, epidemiology and public health, healthcare-associated infections and infection control, how infectious diseases are diagnosed , how microbes cause disease, how our bodies protect us from pathogens and infectious diseases , and the major viral, bacterial, fungal, and parasitic diseases of humans. This course is going to be a three credit hours, two lectures and one laboratory per week. Assessment of achievement is through two written exams of multiple-choice question (MCQ) type (first exam is composed of 30 questions covering lectures and lab sessions and the second exam composed of 25 questions covering lectures and lab sessions), a Quiz (composed of 5 questions), and the final exam (composed of 40 MCQ questions covering lectures and lab sessions).

**Teaching Method:** On Campus

**Text Book**

<b>Title</b>	Burton's Microbiology for the Health Sciences (published by Lippincott Williams & Wilkins)
<b>Author(s)</b>	Paul G. Engelkirk
<b>Edition</b>	11th Edition
<b>Short Name</b>	Reference No.1
<b>Other Information</b>	

**Instructor**

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Class Schedule & Room
<p>Section 1: Lecture Time: Mon, Wed : 09:30 - 10:30 Room: مدرج د. سعد حجازي</p> <p>Section 2: Lecture Time: Sun, Tue : 10:00 - 11:00 Room: NG76</p> <p>Section 3: Lecture Time: Sun, Tue : 12:30 - 13:30 Room: NG76</p> <p>Section 4: Lecture Time: Mon, Thu : 13:00 - 14:00 Room: مدرج الفاروق</p>

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction to Microbiology	From <b>Reference No.1</b>
Week 2	Cell structure and taxonomy 1 & 2	From <b>Reference No.1</b>
Week 3	Acellular, prokaryotic microbes and eukaryotic microbes	From <b>Reference No.1</b>

Week 4	Microbial chemistry & Microbial physiology	From <b>Reference No.1</b>
Week 5	Microbial genetics , Controlling microbial growth in vitro (part 1), Antimicrobial agents (part 1)	From <b>Reference No.1</b>
Week 6	Controlling microbial growth in vitro (part 2) , Antimicrobial agents (part 1)	From <b>Reference No.1</b>
Week 7	Antimicrobial agents (part 2) , Microbial ecology and biotechnology	From <b>Reference No.1</b>
Week 8	Epidemiology and public health , Healthcare epidemiology (part 1)	From <b>Reference No.1</b>
Week 9	Healthcare epidemiology (part 2), Diagnosis of infectious diseases	From <b>Reference No.1</b>
Week 10	Pathogenesis of infectious diseases , Nonspecific host defense mechanisms	From <b>Reference No.1</b>
Week 11	Specific host defense mechanisms (part 1) , Specific host defense mechanisms (part 1)	From <b>Reference No.1</b>
Week 12	Viral infections	From <b>Reference No.1</b>
Week 13	bacterial infections	From <b>Reference No.1</b>
Week 14	Fungal infections, Parasitic infections	From <b>Reference No.1</b>

<b>Mapping of Course Outcomes to Program Outcomes and NQF Outcomes</b>	<b>Course Outcome Weight (Out of 100%)</b>	<b>Assessment method</b>
Student should be able to explain the basic aspects of microbial diversity, structure and function Student should understand basic treatment and prevention of infectious diseases in human [1PLO1, 1PLO9] [1L7K1]	30%	
Student should understand the principles of epidemiology with emphasis on healthcare epidemiology Student should comprehend the pathogenesis and diagnosis of infectious diseases [1PLO1, 1PLO9] [1L7S1, 1L7S2, 1L7C1]	30%	
Student should be able to explain the basics of immune system function in humans Student should be able to list the major human infectious diseases from different microbial classes (i.e. viruses, bacteria, fungi, parasites) with their characteristic features Student should understand the general microbiology lab practices pertaining to microbial identification and sensitivity testing [1PLO1, 1PLO9] [1L7K1, 1L7S1, 1L7C4]	40%	

Relationship to Program Student Outcomes (Out of 100%)													
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14
50								50					

Relationship to NQF Outcomes (Out of 100%)				
L7K1	L7S1	L7S2	L7C1	L7C4
43.33	23.33	10	10	13.33

Policy	
Attendance	The students are expected to attend all classes. Absence in excess of 20% is defined as unsatisfactory progress and will be reported to the head of the department.
Assessment of achievements	1st and 2nd Exams, Quiz and a final exam: - First exam (Written multiple-choice question (MCQ) type covering theory lectures and practical sessions): 30 marks. - Second exam (MCQ covering theory lectures and practical sessions): 25 marks. - Quiz (composed on 5 questions): 5 marks. - Final exam (MCQ covering theory lectures and practical sessions) 40 marks.

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