



**Jordan University of Science and Technology**  
**Faculty of Pharmacy**  
**Pharmacy Department**

PHAR453 Pharmaceutical Microbiology
First Semester 2021-2022

Course Catalog
3 Credit Hours. mechanism of action and biological properties of antibiotics and chemical compounds that are used clinically to treat different types of microbial diseases, development of microorganism's resistance, and ,methods for preventing or reducing such resistance, method of sterilizations.

Text Book	
<b>Title</b>	Hugo and Russell's Pharmaceutical Microbiology
<b>Author(s)</b>	Stephen P. Denyer B ,Norman Hodges , Sean P. Gorman , Brendan F. Gilmore
<b>Edition</b>	9th Edition
<b>Short Name</b>	Ref #1
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Ref # 2	Burton's Microbiology for the Health Sciences	Paul G. Engelkirk	11th Edition	

Instructor	
Name	Dr. Nid"A Alshraiedeh
Office Location	-
Office Hours	Sun : 10:00 - 12:15 Mon : 10:00 - 11:00 Tue : 10:00 - 11:00 Wed : 08:00 - 09:00 Wed : 14:30 - 15:30
Email	nhalshraiedeh@just.edu.jo

<b>Class Schedule &amp; Room</b>
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Section 1:  
Lecture Time: Sun : 08:30 - 10:00  
Room: P1101

Section 2:  
Lecture Time: Mon : 11:30 - 13:00  
Room: SOUTH HALL

Section 3:  
Lecture Time: Mon : 13:00 - 14:30  
Room: P1103

Section 4:  
Lecture Time: Tue : 08:30 - 10:00  
Room: P1101

Section 5:  
Lecture Time: Wed : 11:30 - 13:00  
Room: SOUTH HALL

Section 6:  
Lecture Time: Wed : 13:00 - 14:30  
Room: P1103

**Tentative List of Topics Covered**

<b>Weeks</b>	<b>Topic</b>	<b>References</b>
Weeks 1, 2	introduction to microbiology	From <b>Ref #1</b>
Weeks 3, 4	Principles of microbial pathogenicity and epidemiology	From <b>Ref #1</b> , From <b>Ref # 2</b>
Weeks 2, 3	pathogenesis of infectious disease	From <b>Ref # 2</b>
Weeks 4, 5	Epidemiology and Public Health	From <b>Ref # 2</b>
Weeks 5, 6	Fungi and anti fungal agents	From <b>Ref #1</b>
Weeks 6, 7	Bacterial cell wall inhibitors	From <b>Ref #1</b>
Weeks 7, 8	Bacterial protein synthesis inhibitors	From <b>Ref #1</b>
Weeks 8, 9	Bacterial nucleic acid inhibitors and membrane active agents	From <b>Ref #1</b>
Weeks 9, 10	Chemical disinfectants, antiseptics and preservatives	From <b>Ref #1</b>
Weeks 10, 11	Principles & practice of sterilization	From <b>Ref #1</b>
Weeks 11, 12	Major viral, bacterial and fungal disease	From <b>Ref # 2</b>
Weeks 13, 14	Anti parasitic agents	From <b>Ref #1</b>
Weeks 14, 15	Antiviral agents	From <b>Ref #1</b>

<b>Mapping of Course Outcomes to Program Student Outcomes</b>	<b>Course Outcome Weight (Out of 100%)</b>	<b>Assessment method</b>
Describe in details the morphology, characteristics of microorganisms [10SO1.1]	10%	

Explain the mode of action of antibiotics and other antimicrobial agents. [20SO1.1, 5SO3.1]	25%	
Understanding the principle and types of antiseptics, disinfectants and preservative used for control and prevention of contamination. [8SO1.1, 2SO3.1]	10%	
Understanding the principle and types of sterilization method and their applicability to control and prevention of contamination. [10SO1.1]	10%	
Awareness about challenge imposed by bacterial resistance to antimicrobial agents as well as mechanism of development of resistance. [16SO1.1, 4SO3.1]	20%	
Awareness about pathogenesis, causes and negative health and economic impact of infectious disease and their transmission [20SO1.1, 5SO3.1]	25%	

Relationship to Program Student Outcomes (Out of 100%)														
SO1.1	SO2.1	SO3.2	SO3.3	SO2.2	SO2.3	SO2.4	SO3.1	SO3.4	SO3.5	SO3.6	SO4.1	SO4.2	SO4.3	SO4.4
84							16							

Evaluation	
Assessment Tool	Weight
Midterm exam	40%
Assignment and quizzes	10%
Final exam	50%

Policy	
Exams	All exams are closed book and notes. The final exam is comprehensive (covers all the material). Incomplete exams need approval from the dean of the faculty.
Cheating	Prohibited; and in case of cheating, the student will be subject to punishment according to the Standard JUST policy المادة 7: إذا ضبط الطالب أثناء الامتحان أو الاختبار متلبساً بالغش فتوقع عليه العقوبات التالية مجتمعة: أ- اعتباره راسباً في ذلك الامتحان أو الاختبار. ب- الغاء تسجيله في بقية المسابقات المسجل لها في ذلك الفصل. ج- فصله من الجامعة لمدة فصل دراسي واحد، وهو الفصل التالي للفصل الذي ضبط فيه.
Attendance	According to JUST policy: The faculty member to assign ZERO grade (35) if a student misses 10% of the classes that are not excused. If you miss class, it is your responsibility to find out about any announcements or assignments you may have missed.
Participation	Good participation is expected
Withdrawal	Deadline for undergraduate students to request a formal postponement of study or to withdraw from the university is 14/JAN/2022  Last day of courses withdrawal (without reimbursement of tuition fees) is 14/JAN/2022

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