



T-104  
2022

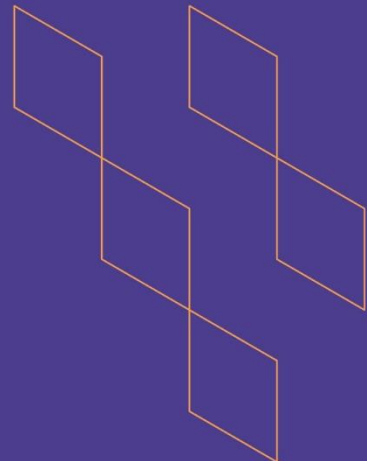
# Course Specification





T-104  
2022

## Course Specification



Course Title:	Pharmaceutical Microbiology-2
Course Code:	332-PHU-3
Program:	Pharmaceutical Sciences
Department:	Pharmaceutics
College:	Pharmacy
Institution:	Najran University
Version:	1
Last Revision Date:	22/12/2023



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## A. General information about the course:

Course Identification	
1. Credit hours:	3 hours (3+0)
2. Course type	
a.	University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Track <input type="checkbox"/> Others <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: 5 <sup>th</sup> level/ 3 <sup>rd</sup> year	
4. Course general Description This courses in continuation to Pharmaceutical Microbiology-1 including description of infectious diseases caused by bacteria, viruses, fungi, and other parasites regarding their mode of transmission, clinical features, identification, management, and preventive measures.	
5. Pre-requirements for this course (if any): 232-PHU-3	
6. Co- requirements for this course (if any): NA	
7. Course Main Objective(s) I. Understand the basic concepts of human microbial infections and diseases, their modes of transmission, pathogenesis, clinical manifestations, prevention and control of infectious diseases. II. Acquire knowledge about management of human infectious diseases caused by bacteria, viruses, fungi, and parasites for safe pharmaceutical practice. III. Understand the basic principles of laboratory diagnosis of bacterial, viral, fungal and parasitic infections in the light of clinical diagnosis.	

### 1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	45	100
2.	E-learning		
3.	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> <li>E-learning</li> </ul>		
4.	Distance learning		

### 2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	45

2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	Total	45



## B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Demonstrate the concepts and knowledge related to infections/diseases caused by microorganisms	K1	Lectures	Theoretical exams (Essay exam, MCQ, Quizzes); Assignments
1.2	Demonstrate the understanding related to mode of infections and preventive measures for microorganisms	K3	Lectures	Theoretical exams, Assignments
...				
2.0	Skills			
2.1	Demonstrate ability to solve problems related to diagnosis, management and preventive measures for infections caused by microorganisms	S3	Lectures Group discussion	Theoretical exams, Assignments
2.2				
...				
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate ability to confidence and independent thinking	V4	Problem-based learning	Observation card
3.2				
...				

## C. Course Content

No	List of Topics (Theory)	Contact Hours
i	Gram positive cocci (Staphylococci, Streptococci, and Pneumococci)	4
ii	Neisseria and Corynebacteria	2
iii	Spore forming bacilli (Bacillus and Clostridia)	2



iv	Mycobacteria	2
v	Enterobacteriaceae (E. Coli, Klebsiella, Enterobacter Citrobacter)	4
vi	Enterobacteriaceae (Salmonella , Shigella, proteus and Yersinia)	4
vii	Gram negative bacilli (Pseudomonas, vibrio, Campylobacter and Helicobacter)	4
viii	Brucella, Haemophilus and Bordetella	2
ix	Spirochaetes, Rickettsiae, Coxiella and Chlamydia	4
x	Medically important fungi (Candida albicans and Cryptococcus neoformans)	2
xi	Myxoviruses, Paramyxoviruses and Rubella virus	4
xii	Herpes viruses	2
xiii	Hepatitis viruses and Retroviruses	3
xiv	Protozoal infections of human	3
xv	Helminth infections of human	3
Total		45

## D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz exam -I	5	05%
2.	Midterm exam	7-9	25%
3.	Quiz exam -II	12	05%
4.	Assignments	15	10%
5.	Observation card	1-15	05%
6.	Final exam	17-19	50%

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

## E. Learning Resources and Facilities

### 1. References and Learning Resources

Essential References	<ol style="list-style-type: none"> <li>1. Medical microbiology, Jawetz, Melnick and Adelberg's. Latest edition.</li> <li>2. Power point slides/word file</li> </ol>
Supportive References	<ol style="list-style-type: none"> <li>1. District laboratory practice in tropical countries. Monica C. Cambridge Uni. Press. Latest edition.</li> </ol>
Electronic Materials	<a href="https://sdl.edu.sa/SDLPortal/en/Publishers.aspx">https://sdl.edu.sa/SDLPortal/en/Publishers.aspx</a> <a href="http://dlaf.nu.edu.sa/en/e-libraries">http://dlaf.nu.edu.sa/en/e-libraries</a>
Other Learning Materials	Excel software for calculations

### 2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<ol style="list-style-type: none"> <li>1. Suitable lecture room equipped with data show and internet and sufficient number of seats.</li> <li>2. Suitable laboratories equipped with health and safety tools, internet and sufficient number of seats.</li> </ol>
Technology equipment (projector, smart board, software)	Computers, data show, sound systems and internet
Other equipment (depending on the nature of the specialty)	Autoclave, Hot air oven, Incubator, Microscope, Refrigerator, Centrifuge, pH meter.

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of students assessment	Examination committee	Direct
Quality of learning resources	Course coordinator and students	Indirect
The extent to which CLOs have been achieved	Course coordinator	Direct
Other		



**Assessor** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval Data

COUNCIL /COMMITTEE	Pharmaceutics Department Council
REFERENCE NO.	Department meeting No. 13
DATE	25/12/2023