



Course Specification

(Bachelor)

Course Title: **Basic Microbiology**

Course Code: **HLT 203**

Program: **Bachelor**

Department: **Shared Courses**

College: **Nursing and Health Sciences**

Institution: **Jazan University**

Version: **2026-1**

Last Revision Date: **19/08/2025**



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A. General information about the course:

1. Course Identification

1. Credit hours: (2+1=3 hrs)

2. Course type

A. ☐ University ☒ College ☐ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (3rd/4th level)

4. Course general Description:

Basic Microbiology course is designed for students with some background in biology whose career path intersect or involves dealing with microbes. This course introduces the basic principles of microbiology, examining the microbes that inhabit our planet and our body and their effects on individuals' health. Students will analyze the impact of microbiology on our lives and the means to control and understand microbial growth and spread.

5. Pre-requirements for this course (if any):

Biology course in the preparatory year.

6. Co-requisites for this course (if any):

NIL

7. Course Main Objective(s):

- Introduction to Microbiology, classification, and impact of Microorganisms on our life.
- The significance of controlling microorganisms' growth and spreading.
- The microbial structure and importance of each part in its pathogenicity.
- A basic knowledge of some of the basic diagnostic methods used in clinical Microbiology.
- Introduced to some essential antimicrobial agents and antibiotic resistance and how they occur.



2. Teaching mode (mark all that apply)

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

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	2 hrs * 15 weeks =30 hrs
2.	Laboratory/Studio	2hrs * 15 weeks = 30 hrs
3.	Field	-
4.	Tutorial	
5.	Others (specify)	
Total		60 hours /semester

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

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Integrate theoretical knowledge of microbial classification, identification, growth and reproduction to be used for diagnosis.	K	<ul style="list-style-type: none"> Lectures Small group discussion 	<ul style="list-style-type: none"> Written exam. Assignment evaluation
1.2	Demonstrate the basic techniques for microbial characterization.	K	<ul style="list-style-type: none"> Lectures Small group discussion 	<ul style="list-style-type: none"> Written exam. Assignment evaluation



Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.3	Identify the basic information about microorganisms, their hosts and factors affecting microbial growth.	K	-Lectures -Small group discussion	- Written exam. -Assignment evaluation
2.0	Skills			
2.1	Organize the suitable environment for bacterial strains and its effects on their function under different ecological conditions.	S	-Practical guidance and demonstration.	- Practical exam. - Lab reports
2.2	Utilize the biochemical tests as indicator to identify the bacterial strains	S	-Practical guidance and demonstration.	- Practical exam. - Lab reports
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate a good teamwork practice during lab sessions	v	- Presentation - Lab Demonstration	-Continuous assessment during lab session

C. Course Content

No	List of Topics	Contact Hours
1.	Course Description	L 02
	Safety rule in Microbiology laboratory and Instrumentations	P 02
2.	Microbial Taxonomy and Classification	L 02
	Microbiological Culture media	P 02
3.	Microbiology and Microorganisms	L 02
	Importance of Sterile and aseptic techniques	P 02
4.	Control of Microorganisms	L 02
	Isolation of pure culture	P 02



5.	Microbial structure and Microscopy	L 02
	Isolation of pure culture	P 02
6.	Microbial structure and Microscopy	L 02
	Gram Stain	P 02
7.	Microbial growth and Basic nutritional requirements	L 02
	Gram Stain	P 02
8.	Chemical and physical requirements of microbial growth	L 02
	Biochemical Tests	P 02
9.	Normal Flora of human body	L 02
	Biochemical Tests	P 02
10.	Microbial pathogenicity and opportunistic pathogen	L 02
	Biochemical Tests	P 02
11.	Food Microbiology & Food borne pathogens. Antimicrobial agents	L 02
	Isolation and Identification of fungi	P 02
12.	Food Microbiology & Food borne pathogens.	L 02
	Antibiotic Susceptibility Test	P 02
13.	Host-Pathogen interaction	L 02
	Laboratory Diagnostic Tests of Parasitic Diseases	P 02
14.	Antimicrobial Agents	L 02
	Practical assignment	P 02
15.	Introduction to Parasitology and parasitic infections	L 02
	Revision	P 02
Total		60 hours



D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Mid-term theory exam	8 th	20%
2.	Course work (Practical Quiz + Oral presentation)	14 ^h	20%
3.	Practical Final exam	17 th	20%
4.	Theory exam	19 th	40%

*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	<p>a. Harvey, R.A. AND Cornelissen, C.N. (2012). Microbiology, 3rd edition. Lippincott Williams and Wilkins.</p> <p>b. Practical Handbook of Microbiology; By Goldman E, 2004.</p> <p>c. Brooks, G.F., Butel, J.S. and Morse, S.A. (2001). Medical Microbiology. Twenty-second edition.</p> <p>d. Lnge Medical Books/McGraw-Hill. Medical Publishing Division.</p>
Supportive References	<p>1. Tille, P. (2013). Bailey & Scott's Diagnostic Microbiology (13th ed.). Mosby.</p> <p>2. Procop, G. W., & Koneman, E. W. (2016). Koneman's Color Atlas and Textbook of Diagnostic Microbiology (7th or latest ed.)</p>
Electronic Materials	Saudi Digital Library (SDL)
Other Learning Materials	Blackboard software

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom, laboratory
Technology equipment (projector, smart board, software)	Data show, Smart Board, PC or laptop
Other equipment (depending on the nature of the specialty)	Lab equipment like (electronic pipettes, beakers flasks...etc.)

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Direct
Effectiveness of	Program Leaders	Indirect



Assessment Areas/Issues	Assessor	Assessment Methods
Students' assessment		
Quality of learning resources	Program Leaders	Indirect
The extent to which CLOs have been achieved	Program Leaders	Indirect
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	MR. KHALID DAWSHI, COORDINATOR DR. AMRO DUHDAH, INSTRUCTOR MRS. TAHIRAH MADKHALI, INSTRUCTOR
REFERENCE NO.	M-323 MLT/55
DATE	10.11.2022

