



Beni-Suef University  
Faculty of Dentistry  
Quality Assurance Unit  
**Course Specification**



University: **Beni-Suef**

Faculty: **Dentistry**

Course Title: **Microbiology 1**

Course code: **MMB 222**

Program on which the course is given: **Bachelor's degree of Dental Science, Graduate program**

Department offering the course: **Microbiology Department, Faculty of Medicine**

Academic year: **2023/2024** Academic level: **second year** Semester: **2<sup>nd</sup>**

Date of specification approval: **September 2023**

### **A-Basic Information**

|                                    |           |
|------------------------------------|-----------|
| Academic Year:                     | 2023-2024 |
| Course Code:                       | MMB 222   |
| Course Theoretical (contact hours) | 1hr*16w   |
| Practical (contact hours)          | 2hr *16 w |
| Total Hours: -                     | 3 hours   |

### **B-Professional Information**

#### **1-Overall aims of course**

The course will introduce the students to the field of immunology, innate and acquired. They are also introduced to immune response and certain immunologically associated phenomena such as hypersensitivity reactions and autoimmunity. Also by the end of the course, the students should be able to viral structure and types and be able to differentiate between different ones and knowledge about antiviral drugs.

#### **2-Intended learning outcomes of course (ILOs)**

##### **a- Knowledge & understanding:**

a1- Describe the general properties of viruses, viral disease pathogenesis, viral replication, and antiviral drugs.

a2- Define the different types of viruses.

a3- State the characteristics of innate and adaptive immunity, antigen, antibody, and complement system.

a4- Describe the immune response, hypersensitivity reaction, and autoimmunity.

**b-Intellectual skills:**

b1- Analyze the different disciplines of microbiology in the medical and dental fields.

b2- Compare between the different microorganisms.

b3- Assess the general properties of viruses, blood-borne viruses, HIV, and Herpes Viruses.

b4- Contrast between innate and acquired immunity.

b5- Evaluate immunological disorders, hypersensitivity reactions, and autoimmunity.

**c- Professional and practical skills:**

c1- Distinguish different types of microorganisms.

c2- Apply the methods of sterilization and disinfection.

**d-General and transferable skills:**

d1- Work effectively as part of a team to produce reports.

d2- Study independently.

**3-Contents:**

| <b>Topic</b>                            | <b>Lectures<br/>(1hrs)</b> | <b>Practical<br/>(2hrs)</b> | <b>weighting</b> |
|---|----------------------------|-----------------------------|------------------|
| Structure and classification of viruses | 10                         | 10                          | 65%              |
| Immunity and hypersensitivity reaction  | 5                          | 5                           | 35%              |

**4- Teaching and learning methods**

|  |                   |
|--|-------------------|
| a-Small group discussion / Brain storming. | <b><u>Yes</u></b> |
| b- Interactive lecture                     | <b><u>yes</u></b> |
| c- Demonstrations.                         | <b><u>yes</u></b> |

### **5- Student assessment methods**

|   |            |
|---|------------|
| a. Written and short answer questions             | <b>Yes</b> |
| b. Written and long essay.                        | <b>yes</b> |
| c. Multiple choice questions (MCQ)                | <b>yes</b> |
| d. True or false question with justifying answer. | <b>yes</b> |
| e. Practical / OSPE.                              | <b>yes</b> |

### **6- Assessment schedule**

|                |            |
|----------------|------------|
| Assigment      | Time       |
| Midterm exam   | March 2024 |
| Practical exam | May 2023   |
| Oral exam      | June 2024  |
| Final exam     | June 2024  |

### **Weighting of assessments**

|            | Written | Practical | Oral Exam | Midterm course work | Total |
|------------|---------|-----------|-----------|---------------------|-------|
| Final Exam | 40      | 20        | 20        | 20                  | 100   |

### **List of reference;**

1- Course notes

2- Essential books:

Microbiology: An introduction, 13<sup>th</sup> edition. GerardJ.Tortora.

Brock Biology of Microorganisms (14th ed.). Madigan, M. and Martinko, J.

**Course coordinator: Dr MostafaElsheemy**

**Head of Department:Dr Mostafa Elsheemy**

**Date: September 2023**