



### Medical And Industrial Microbiology

Course Code	Course Num.	Course Name	Credit Hours	Lec	Lab	Tut	Prerequisites
BIO	446	Medical and industrial microbiology	4	3	2	0	BIO345

#### Objectives:

It is expected to be after the study of this course the student be able:

- To describe the relationship between human and microbiology.
- To classify the types of bacteria that cause human diseases.
- To classified types of fungi that cause human diseases.
- To comparing the bacteria, viruses and fungi in diseases.
- To determine sources of infection and transmission.
- To determine the diagnostic methods.
- To remember the means of prevention to be followed.

Assisting student to understand economic , environmental and social importance of industrial microbiology as follow :

- To show The multiplicity of industrial properties of microbes.
- To remember the importance of micro-biology in the production of vitamins.
- To describe the use of micro-biology in the production of enzymes.
- To define the most important qualities of microbes in food.
- To recognize the multiplicity of different sources of food contamination.
- To compare the causes of food poisoning.

#### Syllabus:

- The relationship between Human and Microbiology
- Classify the types of bacteria that cause human diseases
- Classified types of fungi that cause human diseases
- Symptoms of bacterial infection
- Symptoms of fungal infection
- Sources of infection ,transmission and Diagnostic methods
- means of prevention, health and right ways to be followed
- Estimate growth standards general ways for the development and use of Various media & Industrial properties of microbes
- The production of vitamins and enzymes
- Antibiotic Production & The production of inorganic acids
- The most important characteristics of microbes in food
- Various sources of food contamination
- Food corruption & food poisoning
- Significant changes in milk and microbes that caused
- General revision

#### References:

- Patrick R. Murray Medical Microbiology: with STUDENT CONSULT Online Access, 7e 7th Edition ISBN-13: 978-0323086929.
- Michael T. Madigan Brock Biology of Microorganisms (14th Edition) ISBN-13: 978-0321897398 .
- Michael J. Waites Industrial Microbiology: An Introduction 1st Edition ISBN-13: 978-0632053070 .

