



<b>Course Code</b> NURS-209	<b>Course Title</b> Microbiology	<b>ECTS Credits</b> 6
<b>Prerequisites</b> BIOL-110 NURS-105	<b>Department</b> Life & Health Sciences	<b>Semester</b> Spring
<b>Type of Course</b> Required	<b>Field</b> Biology	<b>Language of Instruction</b> English
<b>Level of Course</b> 1 <sup>st</sup> Cycle	<b>Lecturer(s)</b> Dr. Z. Roupa	<b>Year of Study</b> 2 <sup>nd</sup>
<b>Mode of Delivery</b> Face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

**Objectives of the Course:**

The main objectives of the course are to:

This course aims to help students understand the foundations of microbiology through the study of the general microbiology concepts of structure and growth of microorganisms (bacteria, viruses etc) and their interrelationship with humans. The course also aims to help students realize the importance of hygiene in health care settings and the standard microbiology techniques utilized on a daily basis in laboratories. The main objectives of the course are to:

- Teach students the appropriate terminology to describe the structure, growth and infectivity of microorganisms.
- Discuss the different endogenous and exogenous mechanisms for controlling the infection by pathogenic microorganisms.
- Discuss the principles of physical and chemical methods used to prevent and control infections by microorganisms.
- Enable students to make informed decisions on health and hygiene regarding infectious diseases.

**Learning Outcomes:**

After completion of the course students are expected to be able to:

- Identify many of the disease-causing microorganisms.
- Name the major groups of bacteria and viruses and distinguish structural differences and processes of infection between bacteria and viruses.
- Apply the understanding of the body's immune responses to the process of infection by pathogens and to the strategies used for prevention and control of infectious diseases.
- Evaluate the physical and chemical methods used to control the growth of

microorganisms and apply this understanding to scenarios for prevention of transmission and control of infectious diseases.

- Describe the major microbiology tests used for diagnostic purposes
- Describe the cause and effect of major infections(i.e. urinary tract infections, respiratory infections, sexually transmitted infections)

**Course Contents:**

- Microorganisms and disease
- Response of the body to infection
- The microbiology laboratory
- Treating infectious diseases
- Infection control policies
- Urinary tract infections
- Wound infections
- Respiratory infections
- Infections associated with intravascular devices
- Enteric infections
- Sexually transmitted infections

**Learning Activities and Teaching Methods:**

Lectures, in-class examples and exercises

**Assessment Methods:**

Laboratory Practical Sessions, Tests, Final Examination

**Required Textbooks / Reading:**

Title	Author(s)	Publisher	Year	ISBN
Applied Microbiology for Nurses	D. Gould	Palgrave Macmillan	2000	0333714253

**Recommended Textbooks / Reading:**

Title	Author(s)	Publisher	Year	ISBN
Microbiology; a human perspective	E. W. Nester et al.	McGraw Hill	2009 6 <sup>th</sup> ed	9780071270397