**SHRI H N SHUKLA NURSING INSTITUTE**

**Affiliated By Saurashtra University, Permitted By I.N.C. & G.N.C. And Recognized By G.O.G.** Shree H. N. Shukla College Campus, B/H. Marketing Yard, Nr. Lalpari Lake, Rajkot -360003 E-mail :- HNSNURSING@GMAIL.COM Web. :- [www.hnsgroupofcollege.org](http://www.hnsgroupofcollege.org/)

**Microbiology**

**CENTRAL OBJECTIVES:**

This course is designed to help students gain knowledge and understanding of the characteristics and activities of micro- organisms, how they react under different conditions and how they cause different disorders and diseases. Knowledge of these principles will enable student to understand and adopt practices associated with preventive and promotive health care.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| UNIT/Total hours | LEARNING OBJECTIVE | CONTENT | TEACHINGLEARNING ACTIVITY | A.V. AIDS | EVALUATION |
| II(8) | Classify the different types of micro organism.Describe the normal flora and the common diseases caused by pathogens Explain the methods to study microbes. | **Micro Organisms**1. Classification, characteristics, (Structure, size, method and rate of reproduction)
2. Normal flora of the body.
3. Pathogenesis & common diseases.
4. Methods for study of microbes, culture & isolation of microbes.
 | * Lecture cum discussion
* Explain with use Different Skeletal.
* Lecture cum discussion
* Lecture cum discussion
 | * Transparency
* Skeletal and torso.
* Black board.
 | * Short answer question
* Short answer question
 |
| III(4) | Describe the sources of infection and | **Infection and its transmission**a) Sources and types of infection, | * Power point presentation
* Demonstrate
 | * LCD
* Demonstrate Muscular
 | * Essay type question
* Short answer
 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | growth of microbes. Explain the transmission of infection and the principles in collecting specimens. | nosocomial infection.1. Factors affecting growth of microbes.
2. Cycle of transmission of infection portals of entry, exit, modes of transfer.
3. Reaction of body to infection, mechanism of resistance.
4. Collection of specimens.
 | Muscular movement.* Lecture cum discussion
* Lecture cum discussion
 | movement* Black board
 | question* objective type question
* Essay type question
 |
| IV(5)V(5) | Describe various types of immunity, hypersensitivity autoimmunity and immunizing agentsDescribe the various methods of control and destruction of microbes | **Immunity**1. Types of immunity – innate and acquired.
2. Immunization schedule. Immunoprophylaxis (vaccines, sera etc.)
3. Hypersensitivity and autoimmunity.
4. Principles and uses of serological tests.

**Control and destruction of Microbes**1. Principles and methods of microbial control

-Sterilization-Disinfection-Chemotherapy and antibiotics-Pasteurization1. Medical and surgical asepsis
2. Bio-safety and waste management
 | * Lecture come discussion

Explain with use of Specimen.Power point presentation* Lecture come discussion

Explain with use of Specimen.Power point presentation | * Transparency
* Brain, Spinal cord , cranial nerves , spinal nerves.
* LCD
* Black board
* Transparency
* Brain, Spinal cord , cranial nerves , spinal nerves.
* LCD Black board
 | * Short answer question
* objective type question
* Essay type question
* Short answer question
* Short answer question
* objective type question
* Essay type question

Short answer question |
| VI(6) | Demonstrate skill inhandling & care of | **Practical Microbiology**a) Microscope – Parts, uses, handling |  |  |  |



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | microscopes Identify common microbes under the microscope | and care of microscope1. Observation of staining procedure, preparation and examination of slides and smears
2. Identification of common microbes under the microscope for
* morphology of different microbes.
 | * Lecture come discussion
* Panel discussion
* Power point presentation
 | * Black board & poster
* LCD

Power point | * Essay type question
* Panel

discussion* Short answer question
 |

