



## **SEMESTER-IV**

### **COURSE 11: IMMUNOLOGY**

#### **Learning objectives:**

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| • To promote critical thinking among students                                                            |
| • To provide students with a foundation in immunological processes                                       |
| • To provide students with knowledge on how the immune system works building on their previous knowledge |
| • To clearly state the role of the immune system                                                         |
| • To compare and contrast the innate versus adaptive immune systems                                      |
| • To provide an overview of the interaction between the immune system and pathogens                      |

#### **Learning Outcomes:**

The overall course outcome is that the student shall develop deeper understanding of concepts of immunology. This course will provide students with a deep knowledge in immunology by the completion of the course the graduate shall able to –

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| • Articulate the roles of innate recognition receptors in immune responses                                         |
| • Compare and contrast humoral versus cell-mediated immune responses                                               |
| • Distinguish various cell types involved in immune responses and associated functions;                            |
| • Distinguish and characterize antibody isotypes, development, and functions                                       |
| • Understand the role of cytokines in immunity and immune cell activation;                                         |
| • Understand the significance the Major Histocompatibility Complex in terms of immune response and transplantation |