



Dempo Charities Trust's  
DHEMPE COLLEGE OF ARTS & SCIENCE  
Miramar, Panaji-Goa

Duration: Three to six months

**Course Objectives:**

- a) To enable the students acquire knowledge of basics in Immunology.
- b) To enable the students acquire knowledge of advances in Immunology.

**Course Contents:**

Lectures by the internal faculty on following topics:

1. Introduction
2. Organs
3. Antigens
4. B-cells
5. Immunoglobulins/Antibodies
6. T-cells
7. Macrophages
8. Complement
9. Immunodeficiency

Online lectures by Dr. ShrinivasKaverion the following topics:

10. HLA
11. Cytokines
12. Hypersensitivity
13. Autoimmunity
14. Transplantation
15. Immunosuppressors
16. Vaccination
17. Immunotherapy

**Learning outcomes:**

- a) On the successful completion of the course the students will be able to explain types of immune system, organs of the immune system and maturation and activation of various cells of the immune system.

b) They will be able to describe the types of antigens and antibodies as well as the functions of antibodies.

c) They will be able to describe the role of types and roles of cytokines in immune system.

c) They will be able to explain the concepts of hypersensitivity and autoimmunity transplantation, immunosuppressors, vaccination and immunotherapy