

Course Objectives:

The objectives of the course are:-

1. To be able to clearly state the role of the immune system and a foundation in immunological processes
2. To provide students with knowledge on how the immune system works building on their previous knowledge from biochemistry, genetics, cell biology and microbiology
3. The students will be able to describe immunological response and how it is triggered and regulated.

Course Learning Outcomes:

Upon successful completion of the course, the student will be able to:

1. **Explore** the basic knowledge of immune system
2. **Describe** the concepts of how the immune system works.
3. **Interpret** the problems using immunological techniques for diagnosis of immune disorders.
4. **Identify** the problems using immunological diagnostic tools.
5. **Detect** the problems using the same techniques for other disorders.
6. **DEMONSTRATE** individually the ELISA and other Assays/Tests

Course Contents:

Definition and classification of acute-phase proteins; Biological functions of acute-phase proteins; Phylogenetic aspects of the acute-phase response and evolution of some acute-phase proteins; Stimulation of liver by injury-derived factors; Synthesis and secretion of acute-phase proteins from the liver; Hepatocyte stimulating factor and its relationship to interleukin I; Regulation of synthesis of acute-phase proteins; Extrahepatic synthesis of acute-phase proteins; Catabolism and turnover of acute-phase proteins; Diagnostic and prognostic significance of the acute-phase proteins; Acute-phase proteins in chronic inflammation.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos /films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work:	25 marks
Midterm Exam:	35 marks
Final term Exam:	40 marks

UZO-508 Inflammation, Cytokines and Chemokines-II (Lab.)

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Course Contents:

Specific methods of assay for certain acute-phase proteins; Western blotting of Cytokines

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