

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:

Cellular and humoral components of the early inflammatory reaction; Interleukin I as the key factor in the acute-phase response; Purification and biochemical properties of interleukin I; Interleukin I target cells and induced metabolic changes; Response of the brain to interleukin I; Metabolic changes in other organs following intracerebroventricular injection of endogenous pyrogen/interleukin I; Responses of the immune system to interleukin I; Responses of cells other than those of the brain and the immune system to interleukin I; Responses of muscle to interleukin I; Responses of connective and other tissues and cell types to injury-derived factors; Other injury-mediated metabolic changes.

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-506 Inflammation, Cytokines and Chemokines (Lab.)

Cr. (1)

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Course Contents:

Assays of monokines; General methods applied to assay of acute-phase proteins in plasma, body fluids and tissue cultures.

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