UZO-499 Immune System Cr. (2)

Course Objectives:

The objectives of this course are;

1. To introduce the concept of immunity and immune system
2. To make the students understand components of immune system.
3. To make the students understand how the system respond to any invasion.

Learning outcomes

After completing this course the students would understand

1. The immunity, its importance.
2. The component of the immune system
3. How these components interact to initiate any immune response.

Course Contents:

Introduction to the immune system, elements of innate and acquired immunity, immunogens and antigens, antibody structure and function, antigen-antibody interactions, genetic basis of antibody structure, monoclonal antibodies, biology of the B lymphocytes, the role of MHC in the immune system, biology of T lymphocyte, activation and function of T and B cells, control mechanisms in immune response, cytokines.

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

Text Book

1. Punt J., Stranford S, Jones P., Jones P, Owen J. 2018. Kuby Immunology. Ed 8th, W. H. Freeman

Books Recommended:

2. Parslow T.G., Stites D.P., Terr A.I. and Imboden J.B. 2001. Medical Immunology. Ed 10th, Lange.

UZO-500 Immune System (Lab) Cr. (1)

Course Objectives:

The objectives of this course are;

1. To introduce the concept of precipitation of the proteins in immunology
2. To make the students understand different types of Assays.

Learning outcomes

After completing this course the students would understand

1. The importance of immunoassays
2. The procedure to perform an immune assays.
3. Types of assays that can be used in immune study.

Course Contents:

1. Precipitation reactions based assay Agglutination based tests.
2. Enzyme-linked immunosorbent assay (ELISA).
3. Enzyme linked Oligoneucleotide sorbent assay (ELOSA)
4. Immuno fluorescence assay.
5. Immuno enzymatic cytochemical technique
6. Immuno gold technique.
7. Immuno electron microscopy technique

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

Text Book

1. Punt J., Stranford S, Jones P., Jones P, Owen J. 2018. Kuby Immunology. Ed 8th, W. H. Freeman

Books Recommended:

Parslow T.G., Stites D.P., Terr A.I. and Imboden J.B. 2001.Medical Immunology. Ed 10th, Lange.