UZO-593 Virology Cr. (2)

Course Objectives

The objectives of this course are;

1. To introduce the concept Viruses and Virology
2. To make the students understand about the structure and types of viruses.
3. To make the students understand about life cycle of Viruses.

Learning outcomes

After completing this course the students would understand

1. The types and structure of viruses
2. The processes of virus replication, infection, host specificity
3. Would be able to correlate the viral infection, life cycle and mode of spread.

Course Contents:

1. Viruses and their importance
2. Virus structure
3. Virus transmission
4. Attachment and entry of viruses into cells
5. Transcription, translation and transport
6. Virus genome replication
7. Assembly and exit of virions from cells
8. Outcomes of infection for the host
9. Classification and nomenclature of viruses

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

Books Recommended:

1. CARTER J.,B. & SAUNDERS V.A., 2013, Virology Principles and Applications. Ed 2nd, John Wiley & Sons, UK.

Reference Book/s

2. Albert, B., Bray, D., Lewis, J., Raff, M. et al. 2002. Molecular Biology of the cell 4th Ed. Garland publishing Inc. New York.

UZO-594 Virology (Lab.) Cr. (1)

Course Objectives

The objective of this course is to;

1. Familiarize the students with methods used in virology research.
2. Make them understand about different assays used to detect, culture, viruses

Learning outcomes

After completing this course the students would understand

1. Outline methods for, cultivation, purification detection of viruses and their components
2. assay of virus infectivity
3. investigation of virus gene function
4. assess the value of virus genome sequencing.

Course Contents:

1. Cultivation of viruses
2. Isolation of viruses
3. Centrifugation
4. Structural investigations of cells and virions
5. Electrophoretic techniques
6. Detection of viruses and virus components
7. Infectivity assays
8. Virus genetics

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

Books:

Textbook

1. CARTER J.,B. & SAUNDERS V.A., 2013, Virology Principles and Applications. Ed 2nd, John Wiley & Sons, UK.

Reference Book/s

1. Albert, B., Bray, D., Lewis, J., Raff, M. et al. 2002. Molecular Biology of the cell 4th Ed. Garland publishing Inc. New York.