Liverpool John Moores University

Title:	PRINCIPLES OF VIROLOGY
Status:	Definitive
Code:	**7000VMBMOL** (113119)
Version Start Date:	01-08-2015
Owning School/Faculty:	Pharmacy & Biomolecular Sciences
Teaching School/Faculty:	Pharmacy & Biomolecular Sciences

Team	Leader
Joanne Foulkes	Y

Academic Level:	FHEQ7	**Credit Value:**	20.00	**Total Delivered Hours:**	43.00
Total Learning Hours:	200	**Private Study:**	157		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Tutorial	40.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Written examination	60.0	3.00
Essay	AS1	One written assignment, worth 40% of module mark	40.0	

Aims

1.To introduce students to the study of virus systematics and virus-host relationships
2.To provide students with the fundamental principles of immunology as related to virology
3.To extend knowledge and appreciation of the scientific principles used in the diagnosis of viral infections and related diseases

Learning Outcomes

After completing the module the student should be able to:

1	Demonstrate a systematic understanding of the basic structure and components of viruses and understand how these relate to classification and behaviour
2	Demonstrate a comprehensive understanding of the various components of the human immune system and explain how these relate to anti-viral function
3	Discuss the methods of viral transmission and replication in relation to disease and strategies for virus survival and mutation, and the roles of the immune system in these processes
4	Critically evaluate the types of virus-host relationships important in mammalian disease processes, with emphasis on the immunocompromised host

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM	1	2	3	4
Essay	1	2	3	4

Outline Syllabus

Classification and nomenclature of viruses
RNA and DNA virus replication
Viral structure and assembly
Viral transmission, barriers to transmission and incubation periods
Acute and chronic viral infections, persistence and latency, virulence, morbidity and mortality
Viral survival mechanisms including mutation, shift and drift and genome rearrangement
Zoonoses, epizootics and nosocomial infections
Components of innate and adaptive immune systems, with emphasis on roles of antibodies and cell-mediated immunity in viral clearance and recovery from viral infections
Mechanisms of viral infections and immunopathology
The consequences of immunodeficiency and autoimmunity in relation to viral infections with emphasis on the immunocompromised host
Passive and active vaccination
Immune responses to viral infections of the central nervous system

Learning Activities

Distance learning with tutorial support
Learning materials delivered by Virtual Learning Environment (Blackboard) to include directed reading, online lectures, online assessments with feedback, online discussions

Notes

There will be particular emphasis on developing independent learning skills and IT capability to access and extract relevant scientific information via Blackboard and databases available from LJMU. Online literature searches and evaluation of relevant scientific and popular literature will be key aspects, together with development of written communication skills.
This module will be offered as a single module CPD.