

Jordan University of Science and Technology
Faculty of Veterinary Medicine
Department of Pathology and Animal Health
Second Semester 2006/2007

Course Information	
Course Title	Avian Viral Diseases 3(2 T+1 P) Crd.Hrs.
Course Number	VM 741
Prerequisites	
Course Website	
Instructor	Dr. Mohammad Q Al-Natour, Dr. Saad Gharaibeh
Office Location	C1 L2
Office Phone	22063
Office Hours	Monday and Wed. 9:30-12:30 or by appointment
E-mail	mqalnatour@yahoo.com and al-natour@just.edu.jo
Teaching Assistant	
Course Description	
This course will cover viral diseases in commercial poultry and pet birds. Detailed Description of morphology, biological properties, and laboratory host system for each virus will be discussed. This course will also include natural and experimental hosts, transmission, incubation period, clinical signs, gross and histological lesions, pathogenesis, immunity, serology, diagnosis, preventive measures and control for each virus.	

Text Book	
Title	Diseases of Poultry
Author(s)	Y. M. Saif
Publisher	Iowa State Press
Year	2003
Edition	Eleventh Edition
Book Website	www.iowastatepress.com
References (Scientific Journals)	Avian Diseases, Avian Pathology, Poultry Science, Vet. Preventive Medicine and other related Journals.

Assessment Policy		
Assessment Type	Expected Due Date	Weight
First Exam	On the 6 th week including Laboratory	25%
Second Exam	On the 11 th week including Laboratory	25%
Final Exam	Finals will be posted by the registrar office on the 16 th week	50%
Assignments	Laboratory Work and Lab exams of the course	30%

Course Objectives	Weights
1. Learn and understand the important avian viral diseases, the characteristics of the causal agents, laboratory host system, mode of transmission, clinical signs, P.M. lesions, differential diagnosis and	30%

viral isolation and identification.	
2. Prevention and control of these diseases.	20%
3. Practice the art of viral inoculation, titration and isolation in chicken egg-embryos.	30%
4. Serum titration pre and post viral inoculation.	20%

Teaching & Learning Methods
Teaching: Lectures (using overhead, data show and board), Hand out. Learning: Laboratory Diagnostic Techniques for Avian Viral Pathogens

Learning Outcomes: Upon successful completion of this course, students will be able to		
Related Objective(s)		Reference(s)
1 learn		Chapter 2 and Handouts
1,2		
1-6		
3,4		
5,6		
6		
5		

Useful Resources
http://www.aphis.usda.gov , http://www.cdc.gov , http://www.msstate.edu , http://poultrymed.com

Course Content		
Week	Topics	Chapter in Text (handouts)
1	Avian Influenza	Chapter 5
2	Infectious Bronchitis	Chapter 3
3	Adenovirus infections, Egge Drop Syndrome	Chapter 8
4	LL, RE, LPDT	Chapter 15
5	Chicken Infectious Anemia, Avian Encephalomyelitis	Chapter 7 +10
6	Turkey Viral Infections, First Exam	Chapter

7	Duck Viral Infections, Miscellaneous	Chapter 13
8	Miscellaneous, Avian Paramyxoviruses	Chapter 2
9	Newcastle Disease, Infectious Laryngotracheitis	Chapter 4
10	Avian Pox,	Chapter 9
11	Second Exam	
12	Infectious Bursal Disease, Marek's	Chapter 6
13	Marek's, Viral Arthritis	Chapter 15 + 11
14	Viral Enteric Infections	Chapter 12
15	Recombinant Vaccine Technology	
16	Finals (May 26-June 4 th)	

Additional Notes	
Assignments	Due on weekly bases
Exams	Two midterms and final exams
Cheating	If happened Will be dealt with according to University regulations
Attendance	Will be dealt with according to University regulations
Workload	
Graded Exams	Each Graded Exam will be discussed in the next lecture.
Participation	Is encouraged
Laboratory	All student must attend the video taps and the field trips
Projects	Optional

Practical Part

- 1) Serological procedures
 - a) Introduction to laboratory procedures
 - b) Titration of biological samples
 - c) HA
 - d) HI test
 - e) ELISA
- 2) Egg inoculation
- 3) CEF and continuous cell line preparation
- 4) Virus neutralization
- 5) Other virology techniques