



Training Course specification of Virology

1-Basic information

Course title :	Training course specification of Virology
Academic year:	3 rd academic year (2014/2015)
Program title:	Bachelor of Veterinary Medical Sciences
Contact hours week/semester:	See training program specification

2-Professional information

1- Overall aims of course

At the end of this course, the students had the ability to deal with laboratory diagnosis of different viral diseases by isolation of viruses, serological tests and molecular based techniques, also students became able to deal with equipments of sterilization and tissue culture techniques and how to prepare samples derived from infected animals and birds for detection of viruses.

2- Intended training outcomes of course (ITOs)

a-Knowledge and understanding

By the end of this course the student should be able to:

1. List the most common general viral disease affect different animal species and birds in Egypt.
2. Explain the general characters of viruses causing these diseases as well the diagnosis of these viruses.
3. Gain the ability to deal with lab of diagnosis of viral diseases.

b-Intellectual skills

By the end of this course the student should be able to :

1. Interpret the different causes enhancing the general viral diseases.
2. Plan for diagnosis, control of different viral diseases.

c-Professional and practical skills

By the end of this course the student should be able to:

1. Identify the basic measures that should be followed for taking ideal and suitable samples for isolation of different viruses.
2. Identify and perfect methods of isolation of different animal and avian viruses.
3. Perform serological and molecular techniques for identifying viruses.

d-General and transferable skill

By the end of studying the course, the student should be able to

1. Work effectively as a part of team or individually to collect data.
2. Good communication skills.

3-Topics and contents

Topic
1- Sampling and samples preparation for isolation of viruses
2- Isolation of viruses on embryonated chicken eggs and virus cultivation in cell culture.
3- Identification of viruses by:
1- Serological methods: 1- Haemagglutination inhibition test (HI). 2- Virus neutralization test (VNT). 3- Agar gel precipitation test (AGPT). 4- Enzyme linked immunosorbent assay (ELISA).
2- Molecular methods: 1- Polymerase chain reaction (PCR). 2- Gel electrophoresis technique.

4-Teaching and learning methods -

- 4.1 Identifying the different parts of the virology lab.
- 4.2. Dealing with the equipments and different techniques in the lab.

5-Student assessment

See training Program specification

Training coordinator	Head of department
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