



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		In Vivo and in Vitro Systems Using in the Virological Studies							
Course Code		VVR502		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	127 (<i>Hours</i>)	Theory	1	Practice	2	Laboratory	0
Objectives of the Course		The aim of this course; to teach the cultivation of viruses in vivo and in vitro systems (animal cell culture, eggs containing chick embryos, laboratory animal) and inoculation methods for these systems.							
Course Content		Virologists need to be able to produce the object of their study, so a wide range procedures has been developed for cultivating viruses. Phages are supplied with bacterial cultures, plant viruses may be supplied with specially cultivated plants while animal viruses may be supplied with whole organism, such as mice, eggs containing chick embryo ,insect larvae or cell culture.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Discussion, Individual Study					
Name of Lecturer(s)		Prof. Nural EROL							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	"Virology-I" Burgu I., Akca Y., Ankara University Press, Ankara, 2006
2	"General Virology" Ozturk F., Selcuk University Press, 2003

Week	Weekly Detailed Course Contents	
1	Theoretical	Biosafety Managements
2	Practice	In vivo and in vitro systems for cultivation of viruses
3	Theoretical	Eggs containing chick embryos
4	Practice	Eggs containing chick embryos
5	Theoretical	Cell and tissue culture
6	Practice	Cell and tissue culture
7	Theoretical	Cultivation and purification of viruses
8	Intermediate Exam	Mid-Term Exam
9	Theoretical	Laboratory animals
10	Practice	Inoculation methods in the laboratory animals
11	Theoretical	Inoculation methods for eggs containing chick embryos.
12	Practice	Inoculation methods for eggs containing chick embryos.
13	Theoretical	Inoculation methods for cell and tissue culture
	Practice	Inoculation methods for cell and tissue culture
15	Final Exam	Final Term Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	3	3	0	9
Individual Work	14	1	0	14
Quiz	2	3	1	8
Midterm Examination	1	22	2	24



Final Examination	1	28	2	30
Total Workload (Hours)				127
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	In vivo and in vitro systems for cultivation of viruses.
2	Eggs containing chick embryos.
3	Cell and tissue culture.
4	Cultivation of viruses.
5	Inoculation methods in the laboratory animals.
6	Inoculation methods for eggs containing chick embryos
7	Inoculation methods for cell culture.

Programme Outcomes (Virology (Veterinary Medicine) Master)

1	To be understood the fundamentals of virology, the relations between animal and human in terms of viruses.
2	To be taught to morphological and chemical structure, diversity, classification, cultivation of viruses and be able to infection of virus, be able to blocked abilities of virus replication.
3	To be informed about epidemiology of viral diseases and the control strategies against to viral diseases.
4	To be taught the cultivation, isolation, identification, quantification of viruses
5	To be informed about etiology, epidemiology, pathogenesis, pathology and diagnosis of viral diseases important for animal health in Turkey.
6	To be taught vaccines and types of vaccines. The new developments of vaccines and applications of vaccines.
7	To be informed about advantages and disadvantages of applications of vaccine., and also complications of result of vaccination or post vaccination
8	Understand basic laboratory knowledge and virology laboratory applications.
9	Understand The Laboratory security and Good Laboratory Practice
10	To be taught the GLP in Virology.
11	Using the obtained scientific data in scientific publications such as reports, thesis, article books and writing criteria in ethical rules.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5	L6	L7
P4	5	5	5	5	5	5	5

