



University of Sadat City  
Faculty of Veterinary Medicine  
Dept. of Parasitology  
(2014-2015)



# Parasitic Immunology (690M)

## MASTER COURSE SPECIFICATION

### 1- Basic information

University	University of Sadat City
Faculty	Veterinary Medicine
Course Code:	690M
Course title:	Parasitic Immunology
Department offering the Course:	Parasitology
Program title:	Master in Veterinary Medical Sciences (Parasitology)
Contact hours/week:	Lecture: 1 hours/ week
	Practical: 2 hours/ week
Course coordinator:	Dr. Mahmoud Abou Laila

### 2- Professional information

1- Overall aims of course
Upon successful completion of the course, the student will be able to:
❖ Identify parasitism host- parasite relations and Body response against parasitic infection

❖ <b>Professionally understand Antigen preparation and evaluation of different parasites</b>
<b>2- Intended learning outcomes of course (ILOs)</b>
<b><u>a-Knowledge and understanding</u></b>
<p><b>By the end of this course the graduate should be able to:</b></p> <p>a1- Understand the fundamental concepts of immunoparasitology and technical vocabulary used in this field.</p> <p>a2- Describe the different types of immune response against helminthes, protozoa, and arthropods.</p> <p>a3- Recognize the different types of parasites and host parasite relationship.</p> <p>a4- Explain parasite-host interaction (Immune inter-relations between parasite and the host).</p> <p>A5. Know how parasites evade from host immune response</p>
<b><u>b-Intellectual skills</u></b>
<p><b>By the end of this course the graduate should be able to :-</b></p> <p>b1- differentiate between the humeral and cellular immunity against different types of parasites</p> <p>b2- correlate the different immunological methods for diagnosis of parasites.</p> <p>b3- Specify the factors responsible for response of host against parasites</p> <p>b4- Carry out a protection from infection with different zoonotic parasites.</p> <p>b5 - Identify the different types of immunoglobulin (Ab) and its relation to different parasitic infection</p>
<b><u>c-Professional and practical skills</u></b>
<p><b>By the end of this course the graduate should be able to:</b></p> <p>c1- Collect of samples for immunological diagnosis.</p> <p>c2- Carry out different methods for evaluation of body reaction against parasitic infection.</p> <p>c3- diagnose of different parasitic infection by direct and indirect methods .</p> <p>c4- Prepare parasitic antigens.</p> <p>c5- Detect antibodies against different parasites</p>
<b><u>d-General and transferable skill</u></b>
<p><b>By the end of studying the course, the student should be able to</b></p> <p>d.1. Work effectively as part of a team.</p> <p>d.2. make use of library facilities and IT tools.</p> <p>d.3. Explore appropriate computer / keyboard skills including word</p> <p>d.4. Process, spreadsheets, presentation packages and graph plotting.</p>

### 3- Topics and contents

Theoretical topic	No. of hours		
	Lectures	Practical	Total
Definitions.	4	-	4
The different types of immunoglobulin (Ab) and its relation to different parasitic infection	8	-	8
- host- parasite relations	4	-	4
- Antigen-Antibody Regulations	4	-	4
Immunity to Helminthes Parasites.	8	-	8
Immunity to Protozoon, and arthropods Parasites.	8	-	8
Body response against parasitic infection	4	-	4
Evasion of parasites from host immune response	4	-	4
Antigen preparation and evaluation	8	-	8
<b>practical topic</b>			
Detection of Anti-parasitic Antibodies	-	16	10
Methods of evaluation of body reaction against parasitic infection	-	32	32
Collection of samples for immunological studies .	-	16	16
common steps for preparation of parasitic antigens	-	12	12
Different serological techniques for diagnosis of parasites	-	12	12
Total	44	88	132

### 4- Teaching and learning methods

- 4.1. Lectures.
- 4.2. Practical sessions.
- 4.3. Self-learning and presentation.

### 5-Student assessment

#### a. METHODS:

Written exam	For assessment of knowledge, information and intellectual skills
Practical exam	For assessment of professional and practical skills
Oral exam	For assessment of knowledge, information and intellectual skills
Self learning activities	For assessment of knowledge, general and transferable skills

**b. MATRIX ALIGNMENT OF THE MEASURED ILOs/ ASSESSMENTS METHODS:**

<b><u>Assessments methods</u></b>				
<b>Method</b>	<b>Matrix alignment of the measured ILOs/ Assessments methods</b>			
	<b>K&amp;U (a)</b>	<b>I.S (b)</b>	<b>P&amp;P.S (c)</b>	<b>G.S (d)</b>
Final-Term exam	1,2,3,4	1,3,4		
Practical exam		2, 5	1,2,3,4,5	
Oral exam	1,2,4,5	1,3,4		
Self learning activities				1,2,3,4

**c. WEIGHT OF ASSESSMENTS:**

<b>Assessment</b>	<b>Allocated Mark</b>	<b>Evidence</b>
Final written exam	<b>50%</b>	Marked and signed written paper
Practical exam	<b>20%</b>	Marked and signed practical exam paper
Oral exam	<b>20%</b>	Signed list of oral exam marks
Self learning activities	<b>10%</b>	Signed list of presented materials

**6- List of references**

<b><u>6.1. Essential books</u></b>
1-Hendrix CH.M. (1998 ): diagnostic veterinary parasitology 1998 by mosby . inc. 2-Dawes, B. (1963): Advances in parasitology. Vol. (1-20). 3-Garcia L.S. (1999) practical guide to diagnostic parasitology American society for microbiology
<b><u>6.2. Recommended texts</u></b>
1-Soulsby, E.J.L. (1986): Heminths, Arthropods and protozoa of poultry and rabbit. 8 <sup>th</sup> ed. Baillier, Tidal and Cassel, London.
<b><u>6.3. Journals , Websites .....etc</u></b>
1- Parasitology today 2- The Journal of parasitology 3- www.asp.unl.edu/

- 4- [www.aavp.org](http://www.aavp.org)
- 5- [www.dpd.cdc.gov](http://www.dpd.cdc.gov)
- 6- [www.vetmed.wise.edu](http://www.vetmed.wise.edu)

**Course coordinator:**

Dr. Mahmoud Abou Laila

**Head of department:**

Prof. Dr. Nasr Moawad El-Bahy

## Matrix alignment of course topics and ILOs

Theoretical topic	No. of hours /week		Total hours	Hours for lect.	Hours for pract.	ILOs				T&L. methods				
	Lect.	Pract.				K&U (a)	LS (b)	P.P.S (c)	G.T.S (d)	Lect.	Pract.	Self & active leaning	Audio visual	Case study
Definitions.	8	-	8	8	-	1,3	1,2		1,2,3,4					
The different types of immunoglobulin (Ab) and its relation to different parasitic infection	4	-	4	4	-	1,2,3,4	1,2,3		1,2,3,4					
- host- parasite relations	4	-	4	4	-	1,2,3	1,2,3		1,2,3,4					
- Antigen-Antibody Regulations Immunity to Helminthes Parasites.	4	-	4	4	-	2,4	2,3,4,5		1,2,3,4					
Immunity to Protozoon, and arthropods Parasites.	8	-	8	8	-	4	2,3		1,2,3,4					
Body response against parasitic infection	4	-	4	4	-	3,4	2,3		1,2,3,4					
Evasion of parasites from host immune response	4	-	4	4	-	3,4	2,3		1,2,3,4					
Antigen preparation and evaluation	8	-	8	8	-	1,3,4,5	2,3		1,2,3,4					
<b>practical topic</b>														
Detection of Anti-parasitic Antibodies	-	16	10	-	10			1,2,3,5	1,2,3,4					
Methods of evaluation of body reaction against parasitic infection	-	32	32	-	32			1,2	1,2,3,4					
Collection of samples for immunological studies .		16												

common steps for preparation of parasitic antigens		<b>12</b>												
Different serological techniques for diagnosis of parasites	-	<b>12</b>	<b>40</b>	-	<b>40</b>			<b>1,2,3,4,5</b>	<b>1,2,3,4</b>					
<b>Total</b>	<b>44</b>	<b>88</b>	<b>132</b>	<b>44</b>	<b>88</b>									