



Beni-Suef University
Faculty of Veterinary Medicine
Department of Parasitology

Program Specification for Master Degree
2017-2018

A-Basic information:

- 1- Program title:** *MVSC.*,
- 2- Program type:** *Single*
- 3- Department offering program:**
- 4-Academic year:** *2017-2018*
- 5-Approval date of Department Council:**
- 6-Approval date of Faculty Council:**
- 7-External evaluator:**

B-Professional information:

1- Overall aims of the program:

- 1- Provide graduates the opportunity to develop communication skills.
- 2- Enable graduates to achieve competency in modern laboratory technology.
- 3- Allow graduates to develop practical research project.
- 4- Develop the ability of graduate to engage critically with scientific literature and to critically review and present their own research data.

2- Intended learning outcomes of course (ILOs):

a- Knowledge and understanding:

On successful completion of this program the graduate should be able to :

- a1- List the advanced concepts in veterinary and public health practice and other career related sciences.
- a2- Distinguish the veterinary professional practice and its relation to environmental protection and developing.
- a3- Recognize up to date parasitology research.
- a4- Identify efficiently veterinary parasitology professional practice regulations and ethics.
- a5- Characterize quality principles and basics in veterinary parasitology professional practice.
- a6- Recall scientific research principles and ethics of veterinary parasitology.

b- Intellectual skills:

On successful completion of master program the graduate should be able to:

- b1- Evaluate analytically the veterinary parasitology information for problem solving.
- b2- Solve veterinary parasitology problems with inadequacy of some resources.
- b3- Integrate different knowledge to solve veterinary parasitology professional problems.
- b4- Design a scientific research plan.
- b5- Evaluate the veterinary parasitology risks.

c- Professional and practical skills:

On successful completion of this program the graduate should be able to:

- c1- Perform masterly the recent veterinary parasitology professional practice.
- c2- Write the veterinary parasitology professional reports.
- c3- Evaluate the available and required material, tools and equipment in veterinary parasitology research projects.
- c4- Write efficiently scientific paper and dissertation.

d- General and transferable skills:

On successful completion of this program the graduate should be able to:

- d1- Communicate effectively and use of information technology in the development of veterinary professional practice.
- d2- Own Self-evaluation and need assessment.
- d3- Utilize different available resources for efficient obtaining of knowledge and information.
- d4- Issue the regulations and indicators for performance evaluation.
- d5- Manage time efficiently and work in research groups.

3- Academic standards:

- * The faculty mission, vision and strategic objective are confirmed to the academic standard. The learning outcomes are inline with the department and the faculty mission.
- * Postgraduates NARS (March 2009) Master degree chapter issued by national authority for quality assurance and accreditation of education (NAQAAE) and Veterinary medicine post graduate academic standards (ARS) for the faculty of veterinary medicine, Beni-Suef University, Beni-Suef, Egypt are selected to confirm the appropriateness of the academic standards .

4- Program Structure and Contents:

A- Program duration: At least two academic years from the approval of registration by the Faculty Council and maximum four years. The faculty council has the right to give the applicant another period not exceed two years according to the supervisor request. The first year for preliminary courses study, while the second year for researches and preparation of the Master Thesis.

B- Program structure: Hours/ week:

Basic course:-

Theoretical	3	Practical	7	Total	11
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Subsidiary courses:-

Theoretical	4-8	Practical	6-8	Total	10-16
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☒ **Master Thesis: completed during the second academic year.**

C- Program courses:

1- Basic courses

Code	Course title	Hours /week		Academic year	Teaching duration
		theoretical	practical		
	Master Principal course	3	4	Preliminary year	36 weeks
	Research methods	1	3	Preliminary year	36 weeks

2-Subsidiary courses

Code	Course title	Hours /week		Academic year	Semester
		theoretical	practical		
	Selected (3-5) courses depending on the thesis title from the various Faculty Master courses other than specialty of the Master.	5-6	6-9	Preliminary year	36 weeks

D- Courses contents

See master courses specification

5- Program Admission Requirements

a- According to the Faculty of Veterinary Medicine, Beni-Suef University Bylaws for Post Graduate Programs, applicants should have BVSc., from an Egyptian University or equivalent degree from any approved university, with at least general grade (Good) and (Very Good) in the specialized subject.

b- Also if the student has postgraduate diploma in one specialization of total (3 hours) at least with general grade (Good) and (Very good) in the specialized subject.

c- According to Beni-Suef University requirements, all applicants for postgraduate studies should fulfill preliminary courses on the following subjects:

1- English language (Toefl or equivalent degree)

2- Computer skills (ICDL) or equivalent computer course.

d- Admission to the program is open during March and September annually after at least one year from the BVSc degree.

6- Regulations for Progression and Program Completion:

After finishing the preliminary courses, the graduate student will be eligible to sit for the examination according to the following roles:

No. of course teaching hours/ week	Allowed time for written exam.	Degree	
		Theoretical	Practical and oral exam
≥ 3 hours	3 hours	50	50
≤ 3 hours	2 hours	25	25

- It is mandatory to pass all the courses each chance except biostatic (212)

-The passing mark in each exam is $\geq 60\%$.

-The faculty council has the right to deprive the applicant from entering the exams if his attendance courses is less than 75% .

Qualification grades:

Excellent	≥ 90
Very good	≥ 80
Good	≥ 70
Pass	≥ 60
Failed	45 to less than 60 weak
	Less than 45 Very weak

-After passing, the graduate starts research for Master Thesis at the beginning of the second year.

-The candidate will receive his degree after evaluating and approving the thesis by a committee according to University regulations.

-The applicant should publish at least two scientific papers from the thesis in local or international journals

7-Graduate student assessment:**A: Assessment Tools**

According the Faculty of Veterinary Medicine, Beni-Suef University Bylaws for Post Graduate, students should be assessed at the end of preliminary year and the thesis should be evaluated and approved by a committee according to University regulations.

1-Preliminary year

Assessments methods for each course	practical exam	Oral exam	Written exam
Time of Assessments	By the end of the year	By the end of the year	By the end of the year
Marks	25	25	50

2-Master Thesis:

All master-degree students should prepare a thesis in..... The department council must approve the protocol (plan) of the research. The thesis is supervised by one or more staff members and may include other specialties according to the nature of the research. The thesis should be evaluated and approved by a committee according to University regulations. The applicant should publish at least one scientific paper from the thesis in local or international journals

B- Matrix alignment of the measured ILOs

Assessments methods	Matrix alignment of the measured ILOs			
	K&U (a)	I.S (b)	P&P. S (c)	G&T. S (d)
Written exam	a1,a3,a4,,a6	b1,b2,b4	c1,c3,c4,	
Practical exam	a3,a4,a5	b1,b2,b4	c1,c2,c5	d1,d2
Oral exam	a1,a2,a3,a4,a5	b1,b2,b3	c1,c2	d1,d3,d4,5,

Matrix alignment of the measured ILOS

Evaluator	Tool	Sample
1.post graduate student	Questionnaire at the end of the program	All the PG students
4. External Evaluation	Review program and courses Attending the final exam	Once before implementation annual report
5. College Quality Assurance committee	Annual program reviewer	

Master Program Specification Matrix (Program Courses with ILOS)

Program ILOs		courses
Knowledge and understanding	a1	M-95, M96, M97, M98, M99, M100, M101, M102 and thesis
	a2	M-95, M96, M97, M98, M99, M100, M101, M102
	a3	M-95, M96, M97, M98, M99, M100, M101, M102 and thesis
	a4	M-95, M96, M101, M102
	a5	M-95, M96
	a6	M-95 and thesis
Intellectual skills	b1	M-95, M96, M97, M98, M99, M100, M101, M102
	b2	M-95, M96, M97, M98, M99, M100, M101, M102
	b3	M-95, M96, M97, M98, M99, M100, M101, M102
	b4	M-95, M96, M97, M101, M102 and thesis
	b5	M-95, M96
	b6	M-95
Professional and practical	c1	M-95, M96, M97, M98, M99, M100, M101, M102 and thesis
	c2	M-95, M96, M97, M98, M99, M100, M101, M102
	c3	M-95, M96, M97, M98, M99, M100, M101, M102 and thesis

skills	c4	M-95, M96, M99, M100, M101, M102 and thesis
	c5	M96, M100, M101, M102
General and transferable skills	d1	M-95, M96, M97, M98, M99, M100, M101, M102
	d2	M-95, M96, M97, M98, M99, M100, M101, M102
	d3	M-95, M96, M97, M98, M99, M100, M101, M102
	d4	M-95, M96, M97, M98, M99, M100, M101, M102
	d5	M-95, M96
	d6	M-95, M96
	d7	M-95

Course coordinator

Head of the Department

Program aims – ILOS Matrix for the Master program (MVSc)

مصفوفة اهداف البرنامج مع مخرجات التعلم المستهدفة

Program ILOS		Program aims			
		a-Provide graduates the opportunity to develop communication skills	b- Enable graduates to achieve competency in modern laboratory technology	c- Allow graduates to develop practical research project	d- Develop the ability graduate to engage critically with scientific literature and to critically review and present their own research data
Knowledge and understanding	a1- List the advanced concepts in veterinary and public health practice and other career related sciences		√	√	√
	a2- Distinguish the veterinary professional practice and its relation to environmental protection and developing.		√		√
	a3- Recognize up to date parasitology research.				√
	a4- Identify efficiently veterinary parasitology professional practice regulations and ethics.		√	√	√
	a5- Characterize quality principles and basics in veterinary parasitology professional practice.		√		
	a6- Recall scientific research principles and ethics of veterinary parasitology.			√	√
Intellectual skills	b1- Evaluate analytically the veterinary parasitology information for problem solving.		√		√
	b2- Solve veterinary		√		

Program ILOs Program ILOS		Program aims			
		a-Provide graduates the opportunity to develop communication skills	b- Enable graduates to achieve competency in modern laboratory technology	c- Allow graduates to develop practical research project	d- Develop the ability graduate to engage critically with scientific literature and to critically review and present their own research data
	parasitology problems with inadequacy of some resources				
	b3- Integrate different knowledge to solve veterinary parasitology professional problems.		√		√
	b4- Design a scientific research plan.			√	√
	b5- Evaluate the veterinary parasitology risks.		√	√	√
Practical and professional skills	c1- Perform masterly the recent veterinary parasitology professional practice		√		√
	c2- Write and evaluate the veterinary parasitology professional reports.			√	√
	c3- Evaluate the available and required material, tools and equipment in veterinary parasitology research projects		√	√	
	c4- Write efficiently scientific paper and dissertation.			√	√
General and transferable skills	d1- Communicate effectively and use of information technology in the development of veterinary professional practice.	√	√	√	√

Program ILOs		Program aims			
		a-Provide graduates the opportunity to develop communication skills	b- Enable graduates to achieve competency in modern laboratory technology	c- Allow graduates to develop practical research project	d- Develop the ability graduate to engage critically with scientific literature and to critically review and present their own research data
	d2- Own Self-evaluation and need assessment.			√	√
	d3- Utilize different available resources for efficient obtaining of knowledge and information.		√	√	√
	d4- Issue the regulations and indicators for performance evaluation.		√	√	√
	d5- Mange time efficiently and work in research groups.	√	√	√	

Master Program Specification Matrix (Program ILOS with Academic standers ARS)

Academic standers		Knowledge and understanding						Intellectual skills						Professional and practical skills						General and transferable skills				
Program ILOs		a1	a2	a3	a4	a5	a6	b1	b2	b3	b4	b5	b6	c1	c2	c3	c4	c5	c6	d1	d2	d3	d4	d5
Knowledge and understanding	a1	√																						
	a2		√																					
	a3			√																				
	a4				√																			
	a5					√																		
	a6						√																	
Intellectual skills	b1							√																
	b2								√															
	b3									√														
	b4										√													
	b5											√												
	b6												√											
Professional and practical skills	c1													√										
	c2														√									
	c3															√								
	c4																√							
	c5																	√						
	c6																		√					
General and transferable skills	d1																			√				
	d2																				√			
	d3																					√		
	d4																						√	
	d5																							√



Course specification of postgraduate

1-Basic information

Course Code:	MBC-paras
Course title:	Basic Parasitology
Program title:	Parasitology Master
Contact hours/week	3h lectures/4h practical
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

The main purpose of this course is introducing the academic background and practical experience about parasites of medical veterinary importance and their methods of control.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a1. Recognize basic science of parasitology.
- a2. Outline the systemic classification of parasites.
- a3. Recall the relationship between the parasite and the host.
- a4. Describe diagnosis, prevention and control of parasitic diseases.

b-Intellectual skills

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

- b1-Identify parasitic species.
- b2. Interpret causes of animal diseases and their pathogenesis.
- b3. Discriminate parasitic diseases and suitable control measures.
- b4. Estimate the parasite prevalence.

C- Professional and practical skills

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

- c1- Assess evidence based problems solving of field-presented problems tasks .
- c2. Identify the common taxa of parasites based on morphological and biological characters.
- c3 Assess the behavior of parasites.
- c4. Collect & preserve diagnostic specimens.
- c5. Perform clinical examination of parasites.
- c6. Perform parasitic diseases treatment.

d- General and transferable skills

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

- d.1- Work effectively in a team and manage the time.
- d.2- Gain experience in scientific reporting , presentation and discussion.
- d.3- Efficient use of library facilities, computer skills, etc.
- d.4. Identify and diagnostically approach to parasitic disease.



Course specification of postgraduate

4-Topics and contents

Course	Topic	No. of weeks	Lectures	Practical	Total
(Lec. h./week, Pract h./week)	Introduction to helminthology	1,2	6	8	14
	Class: Trematoda	3,4,5	9	12	21
	Class: Cestoda	6,7,8	9	12	21
	Class: Nematoda	9,10,11	9	12	21
	Veterinary Entomology (Introduction)	12,13	6	8	14
	Myriapoda & Crustacea	14,15,16	9	12	21
	Insecta	17,18,19	9	12	21
	Arachnida	20,21,22	9	12	21
	Parasitic protozoa (Introduction).	23,24	6	8	14
	Phylum: Sarcomastigophora	25,26,27	9	12	21
	Phylum: Apicomplexa	28,29,30	9	12	21
	Phylum: Ciliophora	31,32,33	9	12	21
	Phylum: Sporozoa	34,35,36	9	12	21
	total		108	144	252

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows.
- 5.2- Self learning by preparing essays and presentations (computer researches and library).
- 5.3- Practical (models, samples of stained tissues and data show).

6-Student assessment

6.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a1- a2- a3- a4	b1- b2- b3-a4	c1- c2- c3-c4-c5-c6	
Practical Exam		b1- b2- b3-a4	c1- c2- c3-c4-c5-c6	
Oral Exam	a1- a2- a3-a4	b1- b2- b3-a4		d1-d2-d3-d4

6.2. Assessment schedules

Method	Week(s)
Writing exam	Managed by department administration
Practical exam	Managed by faculty administration



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Course specification of postgraduate

Oral exam	Managed by department administration
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6.3. Weight of assessments

Assessment	Weight of assessment
Writing exam	50%
Practical exam	25%
Oral exam	25%
Total	100%

7- List of references

7.1. Notes and books

Department lecture book.

7.2. Essential books

- a- Helminths, Arthropods & Protozoa of Domesticated Animals, E.J.L. Soulsby (1982).
- b- Parasitology: the biology of animal parasites 5th ed., Elmer R. Nable., 1982
- c- Basic Clinical Parasitology 5th ed., Harold W. Brown, 1983
- d- Textbook of Veterinary Parasitology, 5th.ed., Norman.Dlevine.,1983
- e- Clinical Parasitology. Elizabeth A. Zeibig 1997.
- f- Veterinary Parasitology 2th ed., G.M. Marqubart, 1995.
- g- Manual of General Veterinary Parasitology, Sschaudhri, 2003.
- h- Diagnostic Veterinary Parasitology 2th ed. Charlesm Hendrix, 1998.
- i- General Veterinary Parasitology P.C. Jain, 2002.
- j- Veterinary Clinical Parasitology 7th ed. Anne M., Gary A., 2006

7.3. Recommended texts

- a. Clinical Parasitology.
- b. Veterinary Clinical Parasitology.

7.4. Journals, Websitesetc

Journals: Experimental Parasitology.

Egyptian Veterinary Medical Society of Parasitology Journal.

Websites:

<http://www.journals.elsevier.com/veterinary-parasitology/>

WWW.Science direct

WWW. Pubmed.com

[WWW.Scholar](#) google.com

[WWW.welly](#) interscience

Course Coordinators

Head of Department



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Faculty of Veterinary Medicine

Course specification of postgraduate



Course specification

	Topics	Week	Intended learning outcomes of course (ILOs)			
	Veterinary Parasitology		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction to helminthology	1 st w- 2 nd w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
2	Class: Trematoda	3 rd w- 5 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
3	Class: Cestoda	6 th w- 8 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
4	Class: Nematoda	9 th w- 11 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
5	Veterinary Entomology (Introduction)	12 th -13 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
6	Myriapoda & Crustacea	14 th -16 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
7	Insecta	17 th -19 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
8	Arachnida	20 th -22 nd w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
9	Parasitic protozoa (Introduction).	23 th -24 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
10	Phylum: Sarcomastigophora	25 th -27 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
11	Phylum: Apicomplexa	28 th -30 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
12	Phylum: Ciliophora	31 st -33 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4
13	Phylum: Sporozoa	34 th -36 th w	1,2,3,4	1,2,3,4	1,2,3,4, 5. 6	1,2,3,4



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Faculty of Veterinary Medicine



Course specification of postgraduate

1- Basic information

Course Code:	M-95
Course title :	Advanced Parasitology
Program title:	Master
Contact hours/ week	2hrs/ practical 2hrs/ theoretical total 4hrs
Approval Date	

2- Professional information

Overall aims of course:

1. Study introduction to helminthology and its classification.
2. Identify morphology, life cycle and pathogenesis of trematodes, cestodes and nematodes.
3. Understand morphology, life cycle and pathogenesis of arthropods.
4. Differentiate between Myriapoda and Crustacea.
5. Recognize morphology, life cycle and pathogenesis of different parasitic protozoa infecting animals.
6. Be aware about principles and basics in parasites control.
7. Interpret general methods of parasitological diagnosis.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a.1. Identify classification of helminthology.
- a.2. Describe the morphology and life cycle of trematodes, cestodes and nematodes.
- a.3. Recognize morphology and life cycle of different arthropods.
- a.4. Write about morphology, life cycle and pathogenesis of different parasitic protozoa infecting animal.
- a.5. Summarize principles and basics in parasites control.
- a.6. Comprehend general methods of parasitological diagnosis.

b-Intellectual skills

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

- b.1. Differentiate between morphology, life cycle and pathogenesis of different parasitic affections (trematodes, cestodes and nematodes).
- b.2. Compare between Myriapoda & Crustacea.
- b.3. Correlate the different characteristic features between Insecta and Arachnida.
- b.4. Differentiate between morphology, life cycle and pathogenesis of different parasitic protozoa infecting animals.
- b.5. Interpret principles and basics in parasites control.
- b.6. Utilize general methods of parasitological diagnosis.

c- Professional and practical skills

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

- c.1. Manage the skills of handling and preservation of infected samples.
- c.2. Perform morphological examination of parasites.
- c.3. Practice clinical examination of parasites.
- c.4. Write efficiently a scientific report.

d- General and transferable skills



Course specification of postgraduate

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

- d.1. Work effectively in a team and manage the time.
- d.2. Gain experience in scientific reporting, presentation and discussion.
- d.3. Efficient use of library facilities, computer skills, etc.
- d.4. Communicate effectively and use of information technology in the development his specialty.
- d.5. Own Self-evaluation and need assessment.
- d.6. Lead a team work in different professional practice.
- d.7. Have continuous and self-learning.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. h./week, Pract h./week)	Introduction to helminthology	8	4	4
	Trematodes	16	8	8
	Cestodes	16	8	8
	Nematodes	32	16	16
	Parasitic protozoa (Introduction)	2	1	1
	Phylum: Sarcomastigophora	10	5	5
	Phylum: Apicomplexa	10	5	5
	Phylum: Sporozoa	10	5	5
	Veterinary Entomology (Introduction)	8	4	4
	Myriapoda & Crustacea	4	2	2
	Insecta	16	8	8
	Arachnida	12	6	6
	General diagnostic methods (Manage the skills of handling and preservation of infected samples, perform morphological examinations of parasites, practice clinical examinations of parasites and write efficiently a scientific report).			
	Total	144	72	72

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows.
- 5.2- Self learning by preparing essays and presentations (computer researches and library).
- 5.3- Practical (models, samples of stained tissues and data show).
- 5.4- Video movies for students of special needs.

6-Student assessment



Course specification of postgraduate

6.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3- a4-a5-a6	b1- b2- b3-b4-b5	c1- c2- c3- c4	
Practical Exam	a1- a2- a3-a4- a5-a6	b1- b2- b3- b4-b6	c1- c2- c3- c4-	
Oral Exam	a1- a2- a3-a4- a5-a6-	b1- b2- b3-b4-b5-b6		d1-d2-d3- d4- d5-d6- d7

6.2. Assessment schedules

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
Total	100%

7- List of references

7.1. Notes and books

- a. Department lecture book.
- b. Illustrated practical notes of the department.

7.2. Essential books:

- a- Helminths, Arthropods & Protozoa of domesticated Animals., E.J.L. Soulsby (1982).
- b- Parasitology: the biology of animal parasites 5th.ed., Elmer.R.Nable., 1982.
- c- Molecular biology of parasitic protozoa. Deborah F. Smiths.1996.
- d- Veterinary Parasitology 2th ed., G.M. Marqubart, 1995.
- e- Parasitology for Veterinarians. 9th ed. Dwight D., (2009).

7.3. Recommended texts

- a-Veterinary parasitology.2th.ed., G.M.Marqubart., 1995.
- b- Parasitology for veterinarians. 9th.ed. Dwight.D., (2009)..

7.4. Journals, Websitesetc

Journals:

Veterinary Parasitology.
Egyptian Veterinary Medical Society of Parasitology Journal.



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Websites:

<http://www.journals.elsevier.com/veterinary-parasitology/>

Websites:

WWW.Science direct

WWW. Pubmed.com

[WWW.Scholar](#) google.com

[WWW.welly](#) interscience

Course Coordinators

Head of Department



Course specification

	Topics	Week	Intended learning outcomes of course (ILOs)			
	Advanced Parasitology		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction to helminthology	2	a1- a2- a3- a4-a5- a6	b1- b2- b3- b4-b5- b6	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
2	Trematodes	4	a1- a2- a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
3	Cestodes	4	a1- a2- a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
4	Nematodes	8	a1- a2- a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
5	Parasitic protozoa (Introduction)	1	a4-a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
6	Phylum: Sarcomastigophora	2	a4-a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4-	d1-d2-d3-d4- d5-d6-d7
7	Phylum: Apicomplexa	2	a4-a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
8	Phylum: Sporozoa	2	a4-a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
9	Veterinary Entomology (Introduction)	2	a3-a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
10	Myriapoda & Crustacea	1	a3-a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
11	Insecta	4	a3-a5- a6	b1- b2- b3- b4- b5	c1- c2- c3-c4	d1-d2-d3-d4- d5-d6-d7
12	Arachnida General diagnostic methods (Manage the skills of handling and preservation of infected samples, perform morphological examinations of parasites, practice clinical examinations of parasites and write efficiently a scientific report).	4	a3-a5- a6	b1- b2- b3- b4-b5		



Beni Suef University
Faculty of Veterinary Medicine



Course specification of postgraduate

1-Basic information

Course Code:	M-96
Course title :	Poultry & Rabbits Parasites
Program title:	Master
Contact hours/ week	2hrs/ practical 2hrs/ theoretical total 4hrs
Approval Date	

2-Professional information

Overall aims of course:

1. Understand morphology and biology of helminths infecting birds and rabbits.
2. Differentiate morphology and life cycle of arthropods infecting birds and rabbits.
3. Compare between different protozoa infecting birds and rabbits (morphology and biology).
4. Realize pathogenesis and control of different parasites infecting birds and rabbits.
5. Interpret specific diagnostic techniques to diagnose poultry parasites.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a.1. Recognize morphology and biology of helminths infecting birds and rabbits.
- a.2. Summarize morphology and life cycle of arthropods infecting birds and rabbits.
- a.3. Realize different protozoa infecting birds and rabbits (morphology and biology) .
- a.4. Illustrate pathogenesis and control of different parasites infecting birds and rabbits.
- a.5. Write about specific diagnostic methods to diagnose poultry parasites.

b-Intellectual skills

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

- b.1. Compare between morphology and biology of helminths infecting birds and rabbits.
- b.2. Differentiate between arthropods and protozoa infecting birds and rabbits. .
- b.3. Interpret pathogenesis and control of different parasites infecting birds and rabbits
- b.4. Utilize a scientific research plan.
- b.5. Master specific diagnostic techniques to diagnose poultry parasites.

c- Professional and practical skills

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

- c.1. Manage the skills of handling and preservation of infected samples.
- c.2. Perform morphological examinations of parasites.
- c.3. Practice clinical examinations of poultry parasites.
- c.4. Write efficiently scientific paper and dissertation.
- c.5. Masterly the specific techniques in parasitology.

d- General and transferable skills

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

- d.1. Work effectively in a team and manage the time.
- d.2. Gain experience in scientific reporting, presentation and discussion.
- d.3. Efficient use of library facilities, computer skills, etc.
- d.4. Communicate effectively and use of information technology.
- d.5. Own Self-evaluation and need assessment.



Course specification of postgraduate

d.6. Lead a team work in different professional practice.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. h./week, Pract h./week)	Helminths infecting birds and rabbits (morphology, biology, pathogenesis and control).	40	20	20
	Arthropods infecting birds and rabbits (morphology, biology, pathogenesis and control).	40	20	20
	Protozoa infecting birds and rabbits (morphology, biology, pathogenesis and control).	40	20	20
	Specific diagnostic techniques (manage the skills of handling and preservation of infected samples, perform morphological examinations of parasites, practice clinical examinations of poultry parasites and write efficiently scientific paper).	24	12	12
Total		144	72	72

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows.
- 5.2- Self learning by preparing essays and presentations (computer researches and library).
- 5.3- Practical (models, samples of stained tissues and data show).
- 5.4- Video movies for students of special needs.

6-Student assessment

6.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3- a4-a5-	b1- b2- b3-	c1- c2- c3- c4	
Practical Exam	a1- a2- a3 a5	b1- b2- b3- b4-b5	c1- c2- c3- c4-c5	
Oral Exam	a1- a2- a3-	b1- b2- b3-		d1-d2-d3- d4- d5-d6

6.2. Assessment schedules

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration



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Faculty of Veterinary Medicine

Course specification of postgraduate

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
Total	100%

7- List of references

7.1. Notes and books

- a. Department lecture book.
- b. Illustrated practical notes of the department.

7.2. Essential books:

- a- Helminths, Protozoa and Arthropods of Domesticated Animals: Soulsby, E.J.L., 7th edition. Bailliere Tindall, London, (1982).
- b- Parasitology: the biology of animal parasites.5th.ed., Elmer.R.Nable., 1982
- c- Medical parasitology.3th.ed. R.L. Ichhpujani. 2002.
- d- Parasitic diseases of wild mammals.2th.ed. William. M. Samuel. 2001.
- e- Clinical parasitology. Elizabeth. A. Zeibig. 1997.
- f- Veterinary Parasitology.2th.ed., G.M.Marqubart., 1995.
- g- Medical Parasitology.10th.ed. N.C. Dey. 1997.

7.3. Recommended texts

- a- Clinical Parasitology. Elizabeth. A. Zeibig. 1997
- b- Veterinary Parasitology.2th ed., G.M.Marqubart., 1995.

7.4. Journals, Websitesetc

Journals:

Veterinary Parasitology.
Egyptian Veterinary Medical Society of Parasitology Journal.

Websites:

<http://www.journals.elsevier.com/veterinary-parasitology/>

Websites:

WWW.Science direct
WWW. Pubmed.com
[WWW.Scholar](http://WWW.Scholar.google.com) google.com
[WWW.welly](http://WWW.wellyinterscience.com) interscience

Course Coordinators

Head of Department



Beni Suef University
Faculty of Veterinary Medicine

Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Poultry & Rabbits parasites		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Helminths infecting birds and rabbits (morphology, biology, pathogenesis and control).	10	a1- a2- a3- a4-a5	b1- b2- b3- b4-b5	c1- c2- c3-c4-c5	d1-d2-d3-d4- d5-d6
2	Arthropods infecting birds and rabbits (morphology, biology, pathogenesis and control).	10	a1- a2- a3- a4-a5	b1- b2- b3- b4-b5	c1- c2- c3-c4-c5	d1-d2-d3-d4- d5-d6
3	Protozoa infecting birds and rabbits (morphology, biology, pathogenesis and control).	10	a1- a2- a3- a4-a5	b1- b2- b3- b4-b5	c1- c2- c3-c4-c5	d1-d2-d3-d4- d5-d6
4	Specific diagnostic techniques (Manage the skills of handling and preservation of infected samples, perform morphological examinations of parasites, practice clinical examinations of poultry parasites and write efficiently scientific paper).	6	a1- a2- a3- a4-a5	b1- b2- b3- b4-b5	c1- c2- c3-c4-c5	d1-d2-d3-d4- d5-d6



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Course specification of postgraduate

1-Basic information

Course Code:	M-97
Course title :	Fish Parasites
Program title:	Master
Contact hours/ week	Theoretical:2 Practical:2 Total:4
Approval Date	

2-Professional information

Overall aims of course:

- 1- Studying the nomenclature and classification of fish parasites and its aquaria
- 2- Understanding morphology, life cycle, and pathogenesis of specific monogenea, digenea, cestodes, nematodes, acanthocephalans, arthropods and protozoa of fish.
- 3- Be aware about specific diagnosis, treatment and control of fish parasites.
- 4- Highlighting the zoonotic parasites affecting fish.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a.1- Summarize the classification of fish parasites and its aquaria.
- a.2- Illustrate morphology, life cycle, and pathogenesis of specific monogenea, digenea, cestodes, nematodes, acanthocephalans, arthropods and protozoa of fish.
- a.3- Recognize the zoonotic parasites affecting fish.

b-Intellectual skills

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

- b.1- Differentiate between morphology, life cycle, and pathogenesis of specific monogenea, digenea, cestodes, nematodes, acanthocephalans, arthropods and protozoa of fish.
- b.2- Utilize specific treatment and control of fish parasites.
- b.3- Interpret the zoonotic parasites affecting fish.
- b.4- Adapt specific hygienic measurements during preparation of fish meal to overcome the parasitic diseases as a fast and predicting surveillance programme to prevent dispersion of the parasite in a certain area and season.

C- Professional and practical skills

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

- c.1- Obtain samples from blood, water, feces, diseased or dead fishes ...etc.
- c.2- Perform preservation and staining of the collected samples for specific techniques for diagnosis of fish parasites.
- c.3- Write a report for the spread and dissemination of certain external and internal parasites of fish.

d- General and transferable skills

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

- d.1- Work effectively in a team and manage the time.



Course specification of postgraduate

- d.2- Have experience in scientific reporting, presentation and discussion.
d.3- Utilize of library facilities, computer skills, etc.
d.4. Utilize Identification and diagnostically approach to parasitic-borne disease conditions

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. h./week, Pract h./week)	Introduction of fish parasites.	12	6	6
	Classification of fish parasites and its aquaria.	12	6	6
	Specific monogenea and digenea of fish (morphology, life cycle, and pathogenesis).	16	8	8
	Specific cestodes of fish (morphology, life cycle and pathogenesis).	24	12	12
	Specific nematodes of fish (morphology, life cycle, and pathogenesis).	16	8	8
	Specific acanthocephalans of fish (morphology, life cycle, and pathogenesis).	8	4	4
	Specific protozoa of fish (morphology, life cycle, and pathogenesis).	12	6	6
	Specific arthropods of fish (morphology, life cycle, and pathogenesis).	16	8	8
	Specific treatment and control of fish parasites.	4	2	2
	Zoonotic parasites affecting fish.	8	4	4
	Specific hygienic measurements during preparation of fish meal to overcome the parasitic diseases.	4	2	2
	Specific techniques for diagnosis of fish parasites (collection, preservation and staining of infected samples from blood, water, feces ...etc. and also from diseased or dead fishes and write report for the spread and dissemination of certain parasites of fish).	12	6	6
	Total	144	72	72

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows.
5.2- Self learning by preparing essays and presentations (computer researches and library).
5.3- Practical (models, samples of stained tissues and data show).
5.4- video movies for students of special needs.



Course specification of postgraduate

6-Student assessment

6.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3-	b1- b2- b3-b4	c1- c2- c3- c4	
Practical Exam	a1- a2- a3	b1- b2- b3-b4	c1- c2- c3- c4	
Oral Exam	a1- a2- a3-	b1- b2- b3-b4		d1-d2-d3- d4

6.2. Assessment schedules

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
Total	100%

7- List of references

7.1. Notes and books

- a. Department lecture book.
- b. Illustrated practical notes of the Department.

7.2. Essential books:

- Lom, J. and Dyková, I. (1992) Protozoan Parasites of Fish. Developments in Aquaculture and Fisheries Science, Vol. 26, Elsevier Science Publishers, Amsterdam
- Moravec, F. (1994) Parasitic Nematodes of Freshwater Fishes of Europe. Academia, Prague, 473 pp.
- Moravec, F. (1998) Nematodes of Freshwater Fishes of the Neotropical Region. Academia, Prague, 464 pp.
- Hoffman, G.L. (1998). Parasites of North American Freshwater Fishes. Cornell University Press, Ithaca, New York.
- Kabata, Z. (2003). Copepods Parasitic on Fishes. Linnean Society London

Journals:

Parasitology Research.



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Course specification of postgraduate

Egyptian Veterinary Medical Society of Parasitology Journal.

Websites:

- <http://www.parasitology.org>
 - www.koisite.be
 - www.ars.usdaedis.ifas.ufl.edu
 - www.microscope-microscope.org
 - [www.aquaticparadise.com .gov.](http://www.aquaticparadise.com.gov)
- <http://edis.ifas.ufl.edu/pdffiles/FA/FA04100.pdf>

Course Coordinators

Head of Department



Course specification

	Topics	Week	Intended learning outcomes of course (ILOs)			
	Fish parasites		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction, structure and physiology of parasites	1 st w-3 rd w	1,2,3,4	1,2,3	1,2,3	1,2,3,4,5
2	Reproduction and classification of protozoon	4 th w-6 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
3	Flagellates, <i>Trypanosma</i> , <i>Cryptobia</i> , morphobiol. <i>Hexamita</i> and <i>Spirotrucleus</i> .	7 th w-10 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
4	Ciliates <i>Ichthyophthirius multifiliis</i> , <i>Chilodonella</i> , <i>Trichodina</i> , <i>Ambiphyra</i> . Treatment	11 th w -16 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
5	Myxozoa, Microsporidia, Coccidia <i>Cryptosporidium</i>	17 th w -20 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
6	Heminths, Monogeneans Trematodes Digenean trematodes	21 th w -22 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
7	Nematodes: <i>Camillanus</i> , <i>Capillaria</i> Tissue nematodes encysted in fish	23 th w -25 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
8	Cestodes: <i>Caryophellus</i> , <i>Polyonchobothrium</i> , <i>Bothriocephallus</i> . Tissue cestodes	26 th w -29 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
9	Tissue cysts, Clinical and laboratory diagnosis	30 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
10	Parasitic Crustacea, Branchiura: <i>Argulus</i>	31 th w -32 nd w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
11	Copepoda, <i>Ergasilus</i> . <i>Lernaea</i> ,	33 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
12	Caligidae: diagnosis, treatment & control	34 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5
13	Clinical and laboratory diagnosis	35 th w -36 th w	1,2,3,4	1,2,3,4,5	1,2,3	1,2,3,4,5



Beni Suef University
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Course specification of postgraduate

1-Basic information

Course Code:	M-98
Course title :	Snails and its veterinary importance
Program title:	
Contact hours/ week	Theoretical:1 Practical : 2 Total: 3
Approval Date	

2-Professional information

Overall aims of course:

- 1- Be aware the nature, types and importance of veterinary molluscs (snails) as intermediate hosts helminths to animals and man.
- 2- Recognizing nomenclature and classification of the molluscs species.
- 3- Applying different approaches to handle collect and prepare diagnostic laboratory samples.
- 4- Detect the different bases of control.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a.1. Summarize morphological identification and classification of different snails.
- a.2. Recognize the role of snails transmitting the developmental stages of parasitic helminths.
- a.3. Comprehend biological and physical control, chemical and natural products in control of snails.

b-Intellectual skills

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

- b.1. Differentiate between types of snails as fresh water snails, brackish water, land snails.
- b.2. Compare between medical importance of Family Lymnaeidae, Family Physidae, Family Planorbidae, Family Viviparidae *Zebrina* sp. and *Helicella* *Prinella conica*
- b.3. interpret different control measure.

c- Professional and practical skills

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

- c.1. Perform field visit for collection and examination of snail samples.
- c.2. Perform samples preservation for immediate or further examinations.
- c.3. Write a report about diagnostic laboratory samples.

d- General and transferable skills

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

- d.1. Work effectively in a team.
- d.2. Utilize efficiently the library facilities, computer ,...
- d.3. Have experience to public speaking and scientific reporting, presentation and discussion .
- d.4. Utilize identification and diagnostically approach molluscs-caused disease conditions.

4-Topics and contents



Course specification of postgraduate

Course	Topic	No. of hours	Lectures	Practical
(Lec. h./week, Pract h./week)	Introduction to molluscs (the nature, types and its general importance as intermediate hosts transmitting helminths to animals and humans, handle, collect, preservation for immediate or further examinations and prepare diagnostic laboratory samples.	3	1	2
	Veterinary molluscs, nomenclature and classification.	12	3	9
	Freshwater snails types, morphology and importance.	12	3	9
	Brackish water snails types, morphology and importance	9	3	6
	Land snails types, morphology and importance.	9	3	6
	Family Lymnaeidae, morphology, veterinary and medical importance.	6	2	4
	Family Physidae, morphology, veterinary and medical importance.	9	3	6
	Family Planorbidae, morphology, veterinary and medical importance.	9	3	6
	Family Viviparidae; morphology, veterinary and medical importance.	9	3	6
	<i>Zebrina</i> sp. and <i>Helicella</i> , morphology, veterinary and medical importance.	9	3	6
	<i>Prinella conica</i> ; morphology, veterinary and medical importance.	6	2	4
	Biological and physical control.	6	2	4
	Chemical and natural products in control of snails.	6	2	4
	Field visits	3	1	2
	Total	108	34	74

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows.
- 5.2- Self learning by preparing essays and presentations (computer researches and library).
- 5.3- Practical (models, samples of stained tissues and data show).
- 5.4- video movies for students of special needs.

6-Student assessment

6.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3-	b1- b2- b3-	c1- c2- c3- c4	
Practical Exam	a1- a2- a3	b1- b2- b3-	c1- c2- c3- c4	



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Course specification of postgraduate

Oral Exam	a1- a2- a3-	b1- b2- b3-		d1-d2-d3- d4
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6.2. Assessment schedules

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
Total	100%

7- List of references

7.1. Notes and books

- a. Department lecture book.
- b. Illustrated practical notes of the Department.

7.2. Essential books:

- a- Helminths, Arthropods & Protozoa of domesticated Animals., E.J.L. Soulsby (1982).
- b- Parasitology: the biology of animal parasites 5th.ed., Elmer. R. Nable., (1982).
- c- Fresh water snails of Africa and their medical importance 2nd edition by Taylor & Francis (1994)
- d- Textbook of Veterinary Parasitology, 5th ed., Norman.Dlevine.,1983

Journals:

- Parasitology Research.

Websites:

www.ajtmh.org

www.sunsite.ualberta.ca/

[http:// www.applesnail.net/content/illustratio...](http://www.applesnail.net/content/illustratio...)

Course Coordinators

Head of Department



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate



Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Snails and its veterinary importance		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction to molluscs (the nature, types and its general importance as intermediate hosts transmitting helminths to animals and humans, handle, collect, preservation for immediate or further examinations, and prepare diagnostic laboratory samples.	1 st w	1,2,3	1,2,3	1,2,3,4	1,2,3,4,5
2	Veterinary molluscs, nomenclature and classification.	2 nd w - 5 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
3	Freshwater snails types, morphology and importance.	6 th w-9 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
4	Brackish water snails types, morphology and importance.	28 th w- 36 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
5	Land snails types, morphology and importance.	10 th w -12 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
6	Family Lymnaeidae, morphology, veterinary and medical importance.	13 th w -15 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
7	Family Physidae, morphology, veterinary and medical importance.	16 th w -17 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
8	Family Planorbidae, morphology, veterinary and medical importance.	18 th w -20 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
9	Family Viviparidae; morphology, veterinary and medical importance.	21 st w -23 th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5



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Course specification

10	<i>Zebrina</i> sp. & <i>Helicella</i> , morphology, veterinary and medical importance.	27th w -29th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
11	<i>Prinella conica</i> ; morphology, veterinary and medical importance.	30th w -31th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
12	Biological and physical control.	32th w -33th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
13	Chemical and natural products in control of snails.	34th w -35th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5
14	Field visits	36th w	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4,5



Beni Suef University
Faculty of Veterinary Medicine



Course specification of postgraduate

1-Basic information

Course Code:	M-99
Course title :	Immunoparasitology
Program title:	Master
Contact hours/ week	1h lectures/ 2 h practical total 3h
Approval Date	

2-Professional information

Overall aims of course:

1. Understanding the structure of parasitic antigens and collection of crude and purified antigens.
2. Studying the classification of parasitic antigens and method of antigenic analysis.
3. Study the immune response against specific parasites.
4. Analyze cell mediate immunity and its mechanisms.
5. Be aware of the modification of parasite antigenicity and host immune responsiveness.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a.1- Describe mechanism of immune evasion against specific parasites.
- a.2- Recognize classification of parasitic antigens and methods of antigenic analysis.
- a.3-Summarize cell-mediated immune response.

b- Intellectual skills

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

- b.1- Interpret ways of the parasites to modify itself for immune evasion.
- b.2- Deal with modification of antigenicity of parasites.
- b.3- Correlate modification of host immune response against parasites.

c- Professional and practical skills

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

- c.1- Obtain samples for serological studies.
- c.2- Perform different diagnostic techniques.
- c.3- Practice the collection and preparation of crude and purified antigens.
- c.4- Write a report about the different immunological tests.

d- General and transferable skills

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

- d.1- Work effectively in a team and manage the time.
- d.2- Gain experience in scientific reporting, presentation and discussion.
- d.3- Efficient use of library facilities, computer skills, etc.
- d.4. Identify and diagnostically approach to parasitic disease.

4-Topics and contents



Course specification of postgraduate

Course	Topic	No. of hours	Lectures	Practical
1h lecture/ 2h practical per week.	Introduction and structure of parasitic antigens.	4.5	1.5	3
	Collecting samples for serological studies.	9	3	6
	Classification of parasitic antigens and methods of antigenic analysis.	13.5	4.5	9
	Preparation of crude and purified antigens.	15	5	10
	Immune response against specific parasites.	9	3	6
	Cell-mediated immune response.	13.5	4.5	9
	Mechanism of immune evasion against specific parasites.	6	2	4
	Modification of antigenicity of parasites.	9	3	6
	Modification of host immune response against parasites.	9	3	6
	Collection of crude and purified antigens.	15	5	10
	Practical works (different diagnostic and immunological techniques)	4.5	1.5	3
	Total	108	36	72

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows.
- 5.2- Self learning by preparing essays and presentations (computer researches and library).
- 5.3- Practical (models, samples of stained tissues and data show).
- 5.4- video movies for student of special need

6-Student assessment

6.1. Assessments methods

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3-	b1- b2- b3-	c4	
Practical Exam	a1- a2- a3	b1- b2- b3-	c1- c2- c3- c4	d1-d2-d3- d4
Oral Exam	a1- a2- a3-	b1- b2- b3-		

6.2. Assessment schedules



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
total	100%

7- List of references

7.1. Notes and books

- a. Department lecture book.
- b. Illustrated practical notes of the department.

7.2. Essential books:

- a- Helminths, Arthropods & Protozoa of Domesticated Animals., E.J.L. Soulsby (1982).
- b- Parasitology: the biology of animal parasites 5th ed., Elmer. R. Nable., 1982
- c- Immunity to parasites (how animals control parasite infections.), Derek.Wakelin.1984.
- d- The immunology of host ectoparasitic arthropod relationships, Stephen. K. Wilkel, 1996.

7.3. Recommended texts

- a) Application of immunological methods. (Vol. 1, 2, 3) D. M. Weir.
- b) Immunological techniques (Laboratory Manual), John Goers.

7.4. Journals, Websitesetc

Journals:

Parasitology Research.

Egyptian Veterinary Medical Society of Parasitology Journal.

Websites:

<http://www.journals.elsevier.com/veterinary-parasitology/>

<http://www.parasitology.org>

WWW.Science direct

WWW. Pubmed.com

[WWW.Scholar](http://WWW.Scholar.google.com) google.com

[WWW.welly](http://WWW.wellyinterscience) interscience

Course Coordinators

Head of Department



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate



Beni Suef University
Faculty of Veterinary Medicine

Course specification

	Topics	Week	Intended learning outcomes of course (ILOs)			
	Immunoparasitology		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction and structure of parasitic antigens.	1-2	1,2,3	1,2,3	1,2,3,4	1,2,3,4
2	Collecting samples for serological studies.	3-8			1,2,3,4	1,2,3
3	Classification of parasitic antigen and method of antigenic analysis.	9-12	1,2,3		1,2,3	1,2,3
4	Preparation of crude and purified antigens.	13-15	1,2,3	2,3	1,2,3,4	1,2,3
5	Immune response against specific parasites.	16-17	1,2,3	1,2,3	1,2,3,4	1,2,3,4
6	Cell-mediated immune response	18-20	1,2,3	2,3	4	1,2,3
7	Mechanism of immune evasion against specific parasites.	21-23	1,2	1,2,3	1,2,3,4	1,2,3
8	Modification of antigenicity of parasites.	24-28	1,2,3	1,2,3	1,2,3,4	1,2,3
9	Modification of host immune responsive of parasites.	29-33	1,2,3	1,2,3	1,2,3,4	1,2,3
10	Collection of crude and purified antigens.	34-35	2	2	1,2,3,4	1,2,3
11	Practical works (different diagnostic and immunological techniques)	36	1,2,3	1,2,3	1,2,3,4	1,2,3,4



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Course specification of postgraduate

1- Basic information

Course Code:	M-100
Course title :	Clinical Parasitology
Program title:	Master
Contact hours/ week	2h practical 1h theoretical total 4 h
Approval Date	

2- Professional information

Overall aims of course:

- 1- Identify and diagnose parasitic infections in different hosts.
- 2- Realize the disease problems caused by each parasite.
- 3- Manage fecal examination, blood examination, different techniques for external parasites examination and PM examination.
- 4- Understand and select the best way to diagnose and interpret the results.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a.1. Illustrate the parasitic infections in different hosts.
- a.2. Recognize the disease problems caused by each parasite.
- a.3. Summarize the different diagnostic techniques of different parasite categories.

b- Intellectual skills

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

- b.1- Deal with different techniques of the parasites diagnosis by fecal examination.
- b.2- Adapt the thin and thick films and different techniques for diagnosis of certain blood parasites.
- b.3- Interpret mange diagnosis and identification.

c- Professional and practical skills

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

- c.1- Obtain samples from blood, feces and external parasites at individual and herd levels for both traditional & advanced diagnostic techniques.
- c.2- Perform the different diagnostic fecal examination techniques (direct smear, flotation techniques, sedimentation techniques, MacMaster techniques, fecal culture and larval identification. Baermann's technique, helminths collection, preservation and transportation for identification).
- c.3- Master the different diagnostic blood examination techniques (thin and thick films for diagnosis of blood parasites, techniques for filarial infection, techniques for *Babesia* and *Theileria* infections and techniques for trypanosomiasis infections).
- c.4- Implement the different diagnostic techniques for external parasites (techniques for mange diagnosis and identifications ,techniques for hard ticks collection, transportation and identifications, techniques for soft ticks collection, transportation and identification and techniques for flies producing myiasis collection).



Course specification of postgraduate

c.5- Control PM examination.

d- General and transferable skills

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

- d.1- Work effectively in a team and manage the time.
- d.2- Gain experience in scientific reporting , presentation and discussion.
- d.3- Efficient use of library facilities, computer skills,etc.
- d.4. Identify and diagnostically approach to parasitic diseases.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. h./week, Pract h./week)	Introduction for clinical parasitology (parasitic infection in different hosts, disease problem and the best way to diagnose and interpret the results).	3	1	2
	Fecal examination: Sampling at individual and herd levels. Direct smear, flotation techniques, sedimentation techniques, collection of eggs, oocysts and cysts. MacMaster techniques for evaluation of infection density. Fecal culture and Larval identification. Baermann's technique. Helminths collection, preservation and transportation for identification.	27	9	18
	Blood examination: Thin and thick films for diagnose of blood parasites. Techniques for filarial infection. Techniques for <i>Babesia</i> and <i>Theileria</i> infections. Techniques for trypanosomiasis infections.	30	10	20
	External parasites: Techniques for mange diagnosis and identifications. Techniques for hard ticks collection, transportation and identifications. Techniques for soft ticks collection, transportation and identification. Techniques for flies producing myiasis collection, culture	30	10	20
	PM examination: Animal inoculation, samples selection and handling for both traditional & advanced diagnostic techniques.	18	6	12
	Total	108	36	72

5-Teaching and learning methods



Course specification of postgraduate

- 5.1- Lectures (brain storm, discussion) using board, data shows.
- 5.2- Self learning by preparing essays and presentations (computer researches and library).
- 5.3- Practical (models, samples of stained tissues and data show).
- 5.4 Video movies for students of special needs.

6-Student assessment

6.1. Assessments methods

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3-	b1- b2- b3-	c1- c2- c3-c4- c5	
Practical Exam	a1- a2- a3	b1- b2- b3-	c1- c2- c3-c4- c5	
Oral Exam	a1- a2- a3-	b1- b2- b3-		d1-d2-d3-d4

6.2. Assessment schedules

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
Total	100%

7- List of references

7.1. Notes and books

Department lecture book.

7.2. Essential books

- a- Helminths, Arthropods & Protozoa of Domesticated Animals, E.J.L. Soulsby (1982).
- b- Parasitology: the biology of animal parasites 5th ed., Elmer R. Nable., 1982
- c- Basic Clinical Parasitology 5th ed., Harold W. Brown, 1983
- d- Textbook of Veterinary Parasitology, 5th.ed., Norman.Dlevine.,1983
- e- Clinical Parasitology. Elizabeth A. Zeibig 1997.
- f- Veterinary Parasitology 2th ed., G.M. Marqubart, 1995.
- g- Manual of General Veterinary Parasitology, Sschaudhri, 2003.
- h- Diagnostic Veterinary Parasitology 2th ed. Charlesm Hendrix, 1998.



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

- e- General Veterinary Parasitology P.C. Jain, 2002.
- j- Veterinary Clinical Parasitology 7th ed. Anne M., Gary A., 2006

7.3. Recommended texts

- a. Clinical Parasitology.
- b. Veterinary Clinical Parasitology.

7.4. Journals, Websitesetc

Journals:

Experimental Parasitology.

Egyptian Veterinary Medical Society of Parasitology Journal.

Websites:

<http://www.journals.elsevier.com/veterinary-parasitology/>

WWW.Science direct

WWW. Pubmed.com

[WWW.Scholar](http://WWW.Scholar.google.com) google.com

[WWW.welly](http://WWW.wellyinterscience.com) interscience

Course Coordinators

Head of Department



Course specification

	Topics	Week	Intended learning outcomes of course (ILOs)			
	Clinical Parasitology		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction for clinical parasitology (parasite infection in different hosts, disease problems and the best way to diagnose and interpret the results)	1	1,2,3	1,2,3	1,2,3,4,5	1,2,3,4
2	Fecal examination: Sampling at individual and herd levels. Direct smear, flotation techniques, sedimentation techniques, collection of eggs, oocysts and cysts. MacMaster techniques for evaluation of infection density. Fecal culture and larval identification. Baermann's technique. Helminths collection, preservation and transportation for identification.	2-10	1,2,3	1,3	1,2,3,4,5	1,2,3,4
3	Blood examination: Thin and thick films for diagnose of blood parasites Techniques for filarial infection Techniques for <i>Babesia</i> and <i>Theileria</i> infections. Techniques for trypanosomiasis infections.	11-20	1,2,3	1,2,3	1,2,3,4,5	1,2,3,4
4	External parasites: Techniques for mange diagnosis and identifications. Techniques for hard ticks collection, transportation and identifications. Techniques for soft ticks collection, transportation and identification. Techniques for flies producing myiasis collection, culture.	21-30	1,2,3	1,2,3	1,2,3,4,5	1,2,3,4
5	PM examination: Animal inoculation, samples selection and handling for both traditional & advanced diagnostic techniques.	31-36	1,2,3	1,2,3	1,2,3,4,5	1,2,3,4



Beni Suef University
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Course specification of postgraduate

1-Basic information

Course Code:	M -101
Course title :	Parasites of Wild Animals
Program title:	
Contact hours/ week	2hr/practical 1h/theoretical total 3hrs
Approval Date	

2-Professional information

Overall aims of course:

- 1- Illustrate nomenclature and classification of parasites of wild animals.
- 2- Manage the nature, types, life cycle, importance and control of parasitic species in wild animals.
- 3- Describe morphologically trematodes, cestodes, nematodes, arthropods and protozoa of wild animals.
- 4- Perform, handle, collect, preserve and prepare diagnostic laboratory samples.

3- Intended learning outcomes of course (ILOs)

Knowledge and understanding:

By the end of the Master program, the postgraduate should be able to:

- a.1. Write about nomenclature and classification of the parasites of wild animals.
- a.2. Recognize the nature, types and importance of parasitic species in wild animals.
- a.3. summarize morphological characters of trematodes, cestodes, nematodes, arthropods and protozoa of wild animals.
- a.4. Familiarize life cycle of trematodes, cestodes, nematodes, arthropods and protozoa of wild animals.

b-Intellectual skills

By the end of the Master program, the postgraduate should be able to:

- b.1. Differentiate between trematodes, cestodes, nematodes, arthropods and protozoa of wild animals.
- b.2. Interpret trematodes, cestodes, nematodes, arthropods and protozoa of wild animals life cycle.
- b.3. Interpret control of trematodes, cestodes, nematodes, arthropods and protozoa of wild animals.
- b.4. Deal with general diagnostic techniques for identification of parasites of wild animals.

C- Professional and practical skills

By the end of the Master program, the postgraduate should be able to:

- C.1. Obtain samples for different parasitological diagnostic purposes.
- C.2. Prepare parasitic materials or infected tissues for diagnosis.
- C.3. Manage samples staining or preservation.
- C.4. Use general diagnostic techniques for identification of parasites.



Course specification of postgraduate

C.5. Write a report for identification of parasites.

d- General and transferable skills

By the end of the Master program, the postgraduate should be able to:

d.1. Communicate effectively and use of information technology in the development of veterinary professional practice..

d.2. Utilize different available resources for efficient obtaining of knowledge and information.

d.3. Manage time efficiently and work in research groups.

d.4. Lead a team work in different professional practice

4-Topics and contents

Topic	Week	No. of hours	Lectures	Practical
Introduction to parasites of wild animal and its public health (nature, types, importance of parasitic species in wild animals).	2	6	2	4
Helminths of wild animals (trematodes, cestodes, nematodes). Classification, morphology, biology, control.	10	30	10	20
Arthropods and protozoa of wild animals (Classification, morphology, biology, control).	10	30	10	20
General diagnostic techniques for identification of parasites of wild animals (handle, collection, preservation, staining samples, prepare parasitic materials or infected tissues for diagnosis or preservation and write a report for identification of parasites).	14	42	14	28
Total		108	36	72

5-Teaching and learning methods

5.1- Lectures (brain storm, discussion) using board, data shows.

5.2- Self learning by preparing essays and presentations (computer researches and library).

5.3- Practical (models, samples of stained tissues and data show).

5.4- video movies for students of special needs.

6-Student assessment

6.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3	b1- b2- b3-b4	c1- c2- c3- c4- c5	
Practical Exam	a1- a2- a3- a4	b1- b2- b3	c1- c2- c3- c4- c5	
Oral Exam	a1- a2- a3	b1- b2- b3-	c1- c2- c3-	d1-d2-d3-



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

		b4	c4- c5	d4
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6.2. Assessment schedules

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
total	100%

7- List of references

7.1. Notes and books

- a. Department lecture book.
- b. Illustrated practical notes of the department.

7.2. Essential books:

- a- Helminths, arthropods & protozoa of domesticated animals., E.J.L. Soulsby (1982).
- b- Parasitology: the biology of animal parasites.5th.ed., Elmer. R. Nable, 1982
- c- Veterinary Parasitology.2th ed., G.M. Marquart, 1995.
- d- Manual of General Veterinary Parasitology, Sschaudhri, 2003.
- e- Diagnostic veterinary parasitology.2th ed. Charlesm. Hendrix, 1998.
- f- General Veterinary parasitology. P.C. Jain., 2002.
- g- Veterinary clinical parasitology.7th ed. Anne. M. Gary.A.2006
- h- Parasitic diseases of wild mammals.2th.ed. William.M. Samuel. 2001.

Journals:

- Parasitology Research.
- Veterinary Parasitology.
- Egyptian Society of Parasitology.

Websites:

WWW.Science direct
WWW. Pubmed.com
[WWW.Scholar](http://WWW.Scholar.google.com) google.com
[WWW.welly](http://WWW.wellyinterscience.com) interscience

Course Coordinators

Head of Department



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate



Beni Suef University
Faculty of Veterinary Medicine

Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Parasites of Wild Animals		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction to parasites of wild animal and its public health. (nature, types, importance of parasitic species in wild animals).	2 w	1,2,3	2,4,5	1,2,3,4	1,2,3,4
2	Helminths of wild animals (trematodes, cestodes, nematodes) Classification, morphology, biology, control.	10w	2,3,4	2,3,4	1,2,3,4	1,2,3,4
3	Arthropods and protozoa of wild animals (Classification, morphology, biology, control).	10 w	1,2,3,4	2,3,4	1,2,3,4	1,2,3,4
4	General diagnostic techniques for identification of parasites of wild animals (handle, collection, preservation, staining samples, prepare parasitic materials or infected tissues for diagnosis or preservation and write a report for identification of parasites).	14 w	4	1,3,4	1,2,3,4	1,2,3,4



Beni Suef University
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Course specification of postgraduate

1-Basic information

Course Code:	M -102
Course title :	Farm Animals Parasites
Program title:	Master
Contact hours/ week	2hrs/practical 2hrs/theoretical total 4hrs
Approval Date	

2-Professional information

Overall aims of course:

- 1- Identify efficiently the different parasite species affecting different farm animals such as cattle, buffaloes, sheep, goats and equines.
- 2- Understanding the pathobiology of parasitic species affecting different farm animals such as cattle, buffaloes, sheep, goats and equines.
- 3- Be aware about control of parasitic species affecting different farm animals such as cattle, buffaloes, sheep, goats and equines.
- 4- Use efficiently the most recent specific diagnostic techniques to diagnose parasitic infections in farm animals.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

By the end of the Master program, the postgraduate should be able to:

- a.1. Describe efficiently the morphological identification and classification of different parasite species affecting different farm animals such as cattle, buffaloes, sheep, goats and equines.
- a.2. Summarize the pathobiology of parasitic species affecting different farm animals such as cattle, buffaloes, sheep, goats and equines.
- a.3. Comprehend the different control measures of parasitic species affecting different farm animals such as cattle, buffaloes, sheep, goats and equines.
- a.4. Illustrate and prepare parasitic materials or infected tissues for diagnosis or preservation.

b- Intellectual skills

By the end of the Master program, the postgraduate should be able to:

- b.1. Differentiate parasites affecting different organs of small animals (sheep and goats).
- b.2. Interpret parasite pathobiology affecting different organs of cattle and buffaloes.
- b.3. Compare pathobiology of different parasites affecting different organs of equines.
- b.4. Adapt the specific diagnostic techniques to diagnose parasitic infections in farm animals.

C- Professional and practical skills



Course specification of postgraduate

By the end of the Master program, the postgraduate should be able to:

- C.1.** Perform masterly the recent veterinary professional practice in handling and collection of samples for different parasitological diagnostic purposes.
- C.2.** Write and evaluate the veterinary professional reports related to preserve samples for immediate or further examination and parasitic specimens for particular diagnosis.
- C.3.** Master the available and required material, tools and equipment in veterinary research projects.
- C.4.** Implement specific diagnostic techniques to diagnose parasitic infections in farm animals.

d- General and transferable skills

By the end of the Master program, the postgraduate should be able to:

- d.1.** Communicate effectively and use of information technology in the development of veterinary professional practice.
- d.2.** Utilize different available resources for efficient obtaining of knowledge and information.
- d.3.** Manage time efficiently and work in research groups.
- d.4.** Lead a team work in different professional practice.

4-Topics and contents

Week	Topics	No. of hours	Lectures	Practical
2	Introduction to parasites of farm animal (classification and morphological identification).	16	8	8
3-6	Parasite affecting different organs of small animals (sheep & goats) pathobiology, diagnosis and control.	16	8	8
7-15	Parasite affecting different organs of cattle and buffaloes, pathobiology, diagnosis and control.	36	18	18
16-18	Parasite affecting different organs of equines, pathobiology, diagnosis and control.	18	9	9
19- 36	Specific diagnostic techniques to diagnose parasitic infections in farm animals (handle, collect, preserve and stain samples, write a veterinary professional reports, available and required material, tools and equipment in veterinary research projects).	56	28	28

5-Teaching and learning methods



Course specification of postgraduate

- 5.1- Lectures (brain storm, discussion) using board, data shows.
- 5.2- Self learning by preparing essays and presentations (computer researches and library).
- 5.3- Practical (models, samples of stained tissues and data show).
- 5.4- Video movies for students of special needs.

6-Student assessment

6.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1- a2- a3 – a4	b1- b2- b3-b4	c1- c2- c3- c4	
Practical Exam	a1- a2- a3- a4	b1- b2- b3	c1- c2- c3- c4	
Oral Exam	a1- a2- a3- a5	b1- b2- b3- b4 –	c1- c2- c3- c4	d1-d2-d3- d4

6.2. Assessment schedules

Method	Week(s)
Written exam	Managed by department administration
Practical exam	Managed by faculty administration
Oral exam	Managed by department administration

6.3. Weight of assessments

Assessment	Weight of assessment
Written exam	50%
Practical exam	25%
Oral exam	25%
total	100%

7- List of references

7.1. Notes and books

- a. Department lecture book.
- b. Illustrated practical notes of the department.

7.2. Essential books:

- a- Helminths, Arthropods & Protozoa of domesticated Animals, E.J.L. Soulsby (1982).
- b- Parasitology: the biology of animal parasites 5th ed., Elmer. R. Nable., 1982
- c- Veterinary Parasitology 2th ed., G.M. Marquardt, 1995.
- d- Manual of General Veterinary Parasitology, Sschaudhri, 2003.
- e- Diagnostic Veterinary Parasitology 2th ed. Charlesm Hendrix, 1998.
- f- General Veterinary Parasitology. P.C.Jain., 2002.
- g- Veterinary Clinical Parasitology. 7th ed. Anne M. Gary.A.2006

Journals:



Beni-Suef University
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Course specification of postgraduate

- Veterinary Parasitology.
- Parasitology Research.

Websites:

WWW.Science direct

WWW. Pubmed.com

[WWW.Scholar](http://WWW.Scholar.google.com) google.com

[WWW.welly](http://WWW.wellyinterscience.com) interscience

Course Coordinators

Head of Department



Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Farm animal parasites.		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction to parasites of farm animal (classification and morphological identification)	1 st w- 2 nd w	1,2	2,4	1,2,3	1,2,3,4
2	Parasite affecting different organs of small animals (sheep & goats) pathobiology, diagnosis and control.	3 rd w- 6 th w	3,4,5	1,2,3,4	1,2,3,4	1,2,3,4
3	Parasite affecting different organs of cattle and buffaloes, pathobiology, diagnosis and control.	7 th w- 15 th w	3,4,5	1,2,3,4	1,2,3,4	1,2,3,4
4	Parasite affecting different organs of equines. pathobiology, diagnosis and control.	16 th w- 18 th w	3,4,5	1,2,3,4	1,2,3,4	1,2,3,4
5	Specific diagnostic techniques to diagnose parasitic infections in farm animals (handle, collect, preserve and stain samples, write a veterinary professional reports, available and required material, tools and equipment in veterinary research projects).	19 th w- 36 th w	4,5	3,4	1,2,3,4	1,2,3,4



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