Beni Suef University
Faculty of Veterinary Medicine
Department of Poultry Diseases

Program Specification for Master Degree
2017-2018

A-Basic information:

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

B-Professional information:

1- Overall aims of the program:

By the end of this program the graduate should be able to:

1. Use efficiently the most recent techniques related to diagnosis and control of poultry diseases and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data in poultry science, write the dissertation, scientific papers and apply for scientific projects.
3. Detect and solve the problems facing poultry industry based on scientific and research evidence using available resources efficiently.
4. Develop communication skills and improve scientific co-operation in research groups.

2- Intended learning outcomes of course (ILOs):

a- Knowledge and understanding:

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

a.1. Acquire the advanced concepts in poultry and rabbit medicine.
a.2. Recognize different practices in diagnosis, treatment, prevention and control of poultry and rabbit diseases and its relation to environmental protection.
a.3. Follow up to date scientific researches related to poultry diseases.
a.4. Identify efficiently veterinary professional practice regulations and ethics.
a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.
a.6. Recall scientific research principles and ethics

b- Intellectual skills:

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

b.1. Evaluate analytically available information in order to solve problems facing poultry industry.
b.2. Plan how to overcome inadequacy of some resources to solve problems in the field of specialization.
b.3. Integrate different knowledge to prevent and control poultry diseases.
b.4. Design a scientific research plan.
b.5. Evaluate different risks in poultry farms.
b.6. Plan for enhancing poultry and rabbit performance.
b.7. Make a decision in variable professional and research practice.

c- Professional and practical skills:

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

c.1. Perform efficiently the recent veterinary professional practices.
c.2. Evaluate diagnostic reports for field cases.
c.3. Apply the principles of good experimental design and analyze and evaluate research project.
c.4. Write efficiently scientific paper and dissertation.

d- General and transferable skills:

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

d.1. Communicate effectively and use of information technology in the development of professional practices.
d.2. Assess him/herself.
d.3. Use different facilities for gaining knowledge and information.
d.4. Recognize regulations and indicators for performance evaluation.
d.5. Mange time efficiently and work in research groups.
d.6. Lead a team work in different professional practice.
d.7. Have continuous self-learning.

3- Academic standers:

* 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	4	Practical	7	Total	11

Subsidiary courses:-

Theoretical	4-8	Practical	6-8	Total	10-16

☒ **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		
MBC-PRDS	Basic Course of Poultry and Rabbit Diseases	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		
Vary according to the selected course	Selected (3-5) courses depending on the thesis title from the various Faculty Master courses other than specialty of the Master.	4-8	6-8	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:
I- 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 ≥ 60%.
-The faculty council has the right to deprive the applicant from entering the exams if his attendance in the 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 Poultry and Rabbit Diseases. 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-a2-a3-a4-a5-a6	b1-b2-b3-b4-b5-b6-b7		
Practical Exam		b1-b2-b3-b4-b5-b6-b7	c1-c2-c3-c4	
Oral Exam	a1-a2-a3-a4-a5-a6	b1-b2-b3-b4-b5-b6-b7		d1-d2-d3-d4-d5-d6-d7

8- Evaluation of Program Intended Learning Outcomes

Evaluator	**Tool**	**Sample**
1. Post graduate students	Questionnaire at the end of the program	All the PG students
2. External evaluators	Review program and courses Attending the final exam	Once before implementation annual report
3. College Quality Assurance Committee	Annual program reviewer	

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

Academic standers / Program ILOs		Knowledge and understanding						Intellectual skills							Professional and practical skills				General and transferable skills						
		a1	a2	a3	a4	a5	a6	b1	b2	b3	b4	b5	b6	b7	c1	c2	c3	c4	d1	d2	d3	d4	d5	d6	d7
Knowledge and understanding	**a1**	√																							
	a2		√																						
	a3			√																					
	a4				√																				
	a5					√																			
	a6						√																		
Intellectual skills	**b1**							√																	
	b2								√																
	b3									√															
	b4										√														
	b5											√													
	b6												√												
	b7													√											
Professional and practical skills	**c1**														√										
	c2															√									
	c3																√								
	c4																	√							
General and transferable skills	**d1**																		√						
	d2																			√					
	d3																				√				
	d4																					√			
	d5																						√		
	d6																							√	
	d7																								√

Program aims – ILOS Matrix for the Master program (MVSC)
مصفوفة اهداف البرنامج مع مخرجات التعلم المستهدفة

Program **ILOs**		**Program aims**			
		1. Use e ciently the most recent techniques related to diagnosis and control of poultry diseases and improve the skills of scientific research.	2. Collect, manage and analyze the scientific data in poultry science, write the dissertation, scientific papers and apply for scientific projects.	3. Detect and solve the problems facing poultry industry based on scientific and research evidence using available resources efficiently.	4. Develop communication skills and improve scientific co-operation in research groups.
Knowledge and understanding	a.1. Acquire the advanced concepts in poultry and rabbit medicine	√		√	
	a.2. Recognize different practices in diagnosis, treatment, prevention and control of poultry and rabbit diseases and its relation to environmental protection	√	√	√	
	a.3. Recognize up to date scientific researches related to poultry diseases.	√	√		√
	a.4. Identify efficiently veterinary professional practice regulations and ethics	√			
	a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment	√	√		√
	a.6. Recall scientific research principles and ethics		√	√	
Intell ectual skills	b.1. Evaluate analytically available information in order to solve problems facing poultry	√	√		

Program **ILOs**		**Program aims**			
	industry				
	b.2. Plan how to overcome inadequacy of some resources to solve problems in the field of specialization	√	√		
	b.3. Integrate different knowledge to prevent and control poultry diseases	√	√		√
	b.4. Design a scientific research plan.	√	√		√
	b.5. Evaluate different risks in poultry farms.		√	√	
	b.6. Plan for enhancing poultry and rabbit performance.		√	√	
	b.7. Make a decision in variable professional and research practice		√	√	
Practical and professional skills	c.1. Perform efficiently the recent veterinary professional practices.		√	√	√
	c.2. Write and evaluate diagnostic reports for field cases.	√	√		
	c.3. Apply the principles of good experimental design and analyze and evaluate research project	√	√		√
	c.4. Write efficiently scientific paper and dissertation	√	√		
General and transferable skills	d.1. Communicate effectively and use of information technology in the development of professional practices.	√		√	
	d.2. Assess him/herself.				√
	d.3. Use different facilities for	√	√		√

Program **ILOs**		**Program aims**			
	gaining knowledge and information.				
	d.4. Recognize regulations and indicators for performance evaluation.		√	√	
	d.5. Mange time efficiently and work in research groups.				√
	d.6. Lead a team work in different professional practice				√
	d.7. Have continuous self-learning.				√

Master degree Program Specification Matrix
(Program Courses with ILOS)

Program ILOs		Courses
Knowledge and understanding	**a1**	MBC-PRDS, M-20, M-24, M-40, M-66, M-74, M-84, M-88, M-92, M-93, M-96, Thesis
	a2	MBC-PRDS, M-40, M-52, M-66,
	a3	Thesis
	a4	MBC-PRDS, M-190, M-191, M-193, M-194, M-195,
	a5	MBC-PRDS, M-9, M-10, M-20, M-38, M-40, M-47, M-48, M-66, M-72
	a6	Thesis
Intellectual skills	**b1**	Thesis
	b2	MBC-PRDS, M-210, M-212, M-213, M-214, M-216, M-218, M
	b3	MBC-PRDS, M-190, M-191, M-193, M-194, M-195,
	b4	Thesis
	b5	MBC-PRDS, M-72, M-74, M-80, M-81, M-82, M-84
	b6	MBC-PRDS, -112, M-123, M-152, M-190,
	b7	Thesis
Professional and practical skills	**c1**	MBC-PRDS, -88, M-89, M-90, M-92, M-93, M-96
	c2	MBC-PRDS, 194, M-195, M-196, M-200, M-206, M-209, M-210
	c3	Thesis,
	c4	Thesis
General and transferable skills	**d1**	Thesis
	d2	Thesis
	d3	Thesis
	d4	Thesis
	d5	Thesis
	d6	Thesis
	d7	Thesis

Programme coordinator:
Name
Signature **Date 02-10-2018**
Head of the Department:
Name
Signature **Date 02-10-2018**

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	MBC-PRDS
Course title :	Basic Course of Poultry and Rabbit Diseases
Program title:	MVSC
Contact hours/ week	7 hours per week (3 theoretical and 4 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Properly apply the principles of scientific research and use its different tools.
2. Apply the analytical approach and its use in the field of poultry and rabbit diseases.
3. Employ the acquired knowledge about poultry and rabbit diseases together with other related sciences in his/her professional practices.
4. Show awareness of current problems and recent theories in the field of poultry and rabbit diseases.
5. Identify the practical problems facing poultry and rabbit industry and their solutions.
6. Master different professional skills and techniques in diagnosis, prevention and control of poultry and rabbit diseases.
7. Effectively communicate and lead teamwork.
8. Make decisions in different professional and practical contexts.
9. Effectively use and maintain the available facilities and resources.
10. Show awareness of his/her role in community development and environmental conservation in the field of poultry and rabbit diseases in the light of global and regional variables.
11. Commit the moral and legal rules of poultry specialist.
12. Perform academic and professional self development and continuous learning.

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. Recall information about poultry diseases, poultry feed stuffs and bases of poultry feed formulation and outline specialized theories and knowledge in the field of poultry and rabbit diseases and related sciences.

a.2. Identify the legal and moral rules in different poultry and rabbit diseases diagnosis, prevention and control practices.

a.3. Outline principles and morals of scientific research.

a.4. Define the advanced scientific means serving the field of poultry and rabbit diseases and the development of rabbit industry.

a.5. Understand the mutual influence between different professional practices and their impacts on the environment.

a.6. Identify the principals of application of different quality management systems in poultry raising sectors and practices.

Course specification of postgraduate

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related to poultry and rabbit diseases diagnosis, prevention and control and interpret it to solve the related problems.
b.2. Solve problems facing poultry and rabbit welfare with the lack of some data.
b.3. Merge the acquired knowledge about poultry and rabbit diseases to solve the professional problems.
b.4. Conduct a research study and/or write a scientific paper related to poultry sciences.
b.5. Asses different risk factors for each practice related to poultry industry.
b.6. Properly plan for performance enhancement in poultry and rabbit diseases diagnosis, prevention and control.
b.7. Take decisions using the available information for solving problems facing poultry industry.

c- Professional and practical skills:

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

c.1. Master different conventional and advanced skills and techniques in the field of poultry and rabbit diseases diagnosis, prevention and control.
c.2. Write and evaluate diagnostic reports for field cases.
c.3. Assess different available tools and methods applied in diagnosis of poultry and rabbit diseases.

d- General and transferable skills:

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

d.1. Communicate effectively using different means.
d.2. Properly use the information technologies for development of his/her professional abilities.
d.3. Assess him/herself and learn how to detect his/her learning requirements.
d.4. Use different facilities for gaining knowledge and information.
d.5. Learn how to work effectively as part of a team and properly manage the time.
d.6. Lead teamwork effectively and understand the significance and means of continuous self learning.
d.7. Create rules and indicators for evaluation of the performance of others.

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

4-Topics and contents

Course	Topics	Week	Total (hr)	Lectures (hr)	Practical (hr)
hPoultry and rabbit diseases (Lec. 3h./week, Pract 4h./week)	Viral diseases of poultry	1-6	18	18	-
	Bacterial diseases of poultry	7-11	15	15	-
	Mycotic diseases and mycotoxicosis in poultry	12-14	9	9	-
	Parasitic diseases of poultry	15-17	9	9	-
	Nutritional diseases of poultry and bases of poultry feed formulation	18-19	6	6	-
	Rabbit diseases (viral, bacterial, parasitic, nutritional and vices)	20-22	9	9	-
	Miscellaneous diseases and vices of poultry	23-24	6	6	-
	How to handle zoonotic pathogens	25-26	6	6	-
	Management of laboratory hosts	27-28	6	6	-
	Management of commercial poultry flocks	29-31	9	9	-
	How to design for experimental work	32-33	6	6	-
	How to carry out an investigation of field problem	34-36	9	9	-
	Clinical and postmortem examination of poultry and Rabbit	1-3	12	-	12
	Sampling and sample processing	4-5	8	-	8
	Methods of preparation and handling of media and biological materials	6-7	8	-	8
	Virological examination of poultry and Rabbit (Virus isolation, Electron microscopy, serological identification and molecular biology)	8-10	12	-	12
	Bacteriological examination of poultry and Rabbit (Isolation, staining and light microscopy, serological identification and molecular biology)	11-13	12	-	12
	Estimation of pathogenicity, titration of different avian viruses and bacteria and methods of attenuation	14-16	12	-	12
	Estimation of immunity against viral and bacterial diseases of poultry and rabbit	17-18	8	-	8
	Mycotic examination and detection of mycotoxins in poultry feed stuffs	19-20	8	-	8
	Parasitological examination of poultry (covenantal and molecular methods)	21-22	8	-	8
	Poultry and Rabbit feed analysis and formulation	23-24	8	-	8
	Differential diagnosis of poultry diseases and method of writing diagnostic reports	25-26	8		8
	Biosecurity and disinfection of poultry houses and experimental labs and their effect on human health and the environment	27-30	16	-	16
	Medication against poultry diseases and assays to detect drug residues in poultry meat and eggs	31-33	12	-	12
	Vaccines and vaccination schedules against poultry diseases	34-36	12	-	12
	Total		252	108	144

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:

Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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-a5-a6	b1- b2- b3- b4- b6-b7		
Practical Exam		b1- b2- b3-b5	c1- c2- c3-	
Oral Exam	a1- a2- a3- a4-a5-a6	b1- b2- b3- b4-b5-b7		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Writing exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Beni Suef University
Faculty of Veterinary Medicine

Course specification Matrix

		Topics	Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 7 hours / weak (Lec. 3 hr/wk - Pract. 4 hr/wk)	1	Viral diseases of poultry	1-6	1, 2, 3, 6	1, 2, 3, 4, 6	-	1, 2, 3, 4, 5, 6, 7
	2	Bacterial diseases of poultry	7-11	1, 2, 3	1, 2, 3, 4	-	
	3	Mycotic diseases and mycotoxicosis in poultry	12-14	1, 2, 3, 6	1, 2, 3, 4, 6	-	
	4	Parasitic diseases of poultry	15-17	1, 2, 3	1, 2, 3, 4	-	
	5	Nutritional diseases of poultry and bases of poultry feed formulation	18-19	1, 2, 3, 6	1, 2, 3, 4, 6	-	
	6	Rabbit diseases (viral, bacterial, parasitic, nutritional and vices)	20-22	1, 2, 3, 6	1, 2, 3, 4	-	
	7	Miscellaneous diseases and vices of poultry	23-24	1, 2, 3, 6	1, 2, 3, 4, 6	-	
	8	How to handle zoonotic pathogens	25-26	1, 2, 3, 6	1, 2, 3, 4, 6	-	
	9	Management of laboratory hosts	27-28	1, 2, 3, 6	1, b, 5	-	
	10	Management of commercial poultry flocks	29-31	1, 2, 3	1, 2, 3, 4, 6	-	
	11	How of design for experimental work	32-33	1, 2, 3, 6	1, 2, 3, 4	2	
	12	How to carry out an investigation of field problem	34-36	1, 2, 3	1, 2, 3, 4, 6	2	
	13	Clinical and postmortem examination of poultry and Rabbit	1-3	4, 5, 6	1, 2, 5, 7	1, 3	
	14	Sampling and sample processing	4-5	4, 5, 6	1, 2, 5	1, 3	
	15	Methods of preparation and handling of media and biological materials	6-7	4, 5, 6	1, 2, 5	1, 3	
	16	Virological examination of poultry and Rabbit (Virus isolation, Electron microscopy, serological identification and molecular biology)	8-10	4, 5, 6	1, 2, 5	1, 2, 3	
	17	Bacteriological examination of poultry and Rabbit (Isolation, staining and light microscopy, serological identification and molecular biology)	11-13	4, 5, 6	1, 2, 5	1, 2, 3	
	18	Estimation of pathogenicity, titration of different avian viruses and bacteria and methods of attenuation	14-16	4, 5	1, 2, 5	1, 2, 3	
	19	Estimation of immunity against viral and bacterial diseases of poultry and rabbit	17-18	4, 5	1, 2, 5	1, 3	
	20	Mycotic examination and detection of mycotoxins in poultry feed stuffs	19-20	4, 5, 6	1, 2, 5	1, 2, 3	
	21	Parasitological examination of poultry (covenantal and molecular methods)	21-22	4, 5, 6	1, 2, 5	1, 2, 3	
	22	Poultry and Rabbit feed analysis and formulation	23-24	4, 5, 6	1, 2, 5	1, 2, 3	
	23	Differential diagnosis of poultry diseases and method of writing diagnostic reports	25-26	4, 5, 6	1, 2, 5	1, 3	
	24	Biosecurity and disinfection of poultry houses and experimental labs and their effect on human health and the environment	27-30	4, 5, 7	1, 2, 5, 7	1, 2, 3	
	25	Medication against poultry diseases and assays to detect drug residues in poultry meat and eggs	31-33	4, 5, 6	1, 2, 5, 7	1, 3	
	26	Vaccines and vaccination schedules against poultry diseases	34-36	4, 5, 6	1, 2, 5, 7	1, 3	
	Student activity		Along the course	1, 2, 3, 4	1, 2, 3, 7	1, 2, 3	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-170
Course title :	Bacterial Diseases of Poultry
Program title:	MVSc
Contact hours/ week	4 hours per week (2 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques related to diagnosis and control of bacterial diseases of poultry and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about bacterial diseases of poultry.
3. Be aware about his role in community development and environment protection and match scientifically the national and international changes.
4. Detect and solve the problems of bacterial causes facing poultry industry based on scientific and research evidence.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of bacterial diseases of poultry.

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. Acquire the advanced knowledge about bacterial diseases of poultry and their pathogenesis and interaction with other diseases.

a.2. Recognize different practices in diagnosis, treatment, prevention and control bacterial diseases of poultry and its relation to environmental protection.

a.3. Recognize up to date scientific researches related to poultry diseases of bacterial origin and define the advanced scientific means serving the field of bacterial diseases of poultry.

a.4. Identify efficiently regulations and ethics related to diagnosis and treatment of bacterial diseases of poultry and how to implement them in scientific research.

a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual skills:

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

b.1. Evaluate analytically available information in order to diagnose, prevent and control bacterial diseases facing poultry industry.

b.2. Plan how to overcome inadequacy of some resources to solve problems in the field of

specialization.

b.3. Integrate different knowledge to prevent and control bacterial diseases of poultry.
b.4. Design a scientific research plan.
b.5. Evaluate different risks in poultry farms with a special regard to bacterial ones.
b.6. Plan for enhancing poultry performance.
b.7. Suggest the appropriate decision to solve field problems.

c- Professional and practical skills:

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

c.1. Perform efficiently the conventional and advanced techniques used in diagnosis, prevention and control of bacterial diseases of poultry.
c.2. Write and evaluate diagnostic reports for field cases.
c.3. Apply experimental design and analyze research project.
c.4. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively and use of information technology in the development of professional practices.
d.2. Assess him/herself and learn how to detect his/her learning requirements.
d.3. Use different facilities for gaining knowledge and information.
d.4. Recognize regulations and indicators for performance evaluation.
d.5. Mange time efficiently and work in research groups.
d.6. Lead a team work in different professional practice.
d.7. Have continuous self-learning.

Course specification of postgraduate

4-Topics and contents

Course	Topic	Week	No. of hours	Lectures (hr)	Practical (hr)
Poultry and rabbit diseases (Lec. 2h./week, Pract 2h./week)	Salmonella infection	1-3	6	6	-
	Colibacillosis	4-6	6	6	-
	Pasteurllosis and other related infection	7-9	6	6	-
	Clostridial diseases	10-12	6	6	-
	Campylobacteriosis	13-14	4	4	-
	Mycoplasmosis	15-16	4	4	-
	Infectious coryza	17-18	4	4	-
	Bordetellosis	19-20	4	4	-
	Chylamidiosis	21-22	4	4	-
	Spirochetosis	23-25	6	6	
	Staphylococcosis	26-27	4	4	-
	Streptococcosis	28-29	4	4	-
	Pseudomonas infection	30	2	2	-
	Erysipelas	31	2	2	-
	Avian Tuberculosis	32	2	2	-
	Update of the current status of chosen bacterial diseases in Egypt	33-34	4	4	-
	Bases of writing a thesis and research plan	35-36	4	4	-
	How to handle zoonotic bacteria	1-2	4	-	4
	How to carry out an investigation of field problem	3-5	6	-	6
	Clinical examination	6-7	4	-	4
	Anatomy and pathological examination	8-10	6	-	6
	Sampling and sample preparation for bacteriological techniques	11-14	8	-	8
	Isolation of bacteria	15-18	8	-	8
	Microscopical examination as diagnostic tool	19-20	4	-	4
	Biochemical and serological identification of bacteria	21-23	6	-	6
	PCR	24-26	6	-	6
	Principles of prevention and control of bacterial diseases	27-29	6	-	6
	Antimicrobial sensitivity testing	30-32	6	-	6
	Medication and vaccination against bacterial infection	33-34	4	-	4
	Different drugs interaction	35-36	4	-	4
	Total		144	72	72

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:
Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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, b4, b5, b6, b7		
Practical Exam		b1, b2, b3, b4, b5, b6, b7	c1, c2, c3, c4	
Oral Exam	a1, a2, a3, a4, a5	b1, b2, b3, b4, b5, b6, b7		d1, d2, d3, d4, d5, d6, d7

6.2. Assessment schedules

Method	Week(s)
Written exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 4 hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	1	Salmonella infection	1-3	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	2	Colibacillosis	4-6	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	3	Pasteurllosis and other related infection	7-9	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	4	Clostridial diseases	10-12	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	5	Campylobacteriosis	13-14	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	6	Mycoplasmosis	15-16	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	7	Infectious coryza	17-18	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	8	Bordetellosis	19-20	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	9	Chylamidiosis	21-22	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	10	Spirochetosis	23-25	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	11	Staphylococcosis	26-27	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	12	Streptococcosis	28-29	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	13	Pseudomonas infection	30	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	14	Erysipelas	31	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	15	Avian Tuberculosis	32	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	16	Update of the current status of chosen bacterial diseases in Egypt	33-34	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 7	4	1,2,3,4,5,6,7
	17	Bases of writing a thesis and research plan	35-36	1, 2, 3, 4, 5	2, 3, 4	2, 3, 4	
	18	How to handle zoonotic bacteria	1-2		1, 2, 3, 5	1, 2, 3	
	19	How to carry out an investigation of field problem	3-5		1, 2, 3, 4, 5, 6, 7	1, 2, 3	
	20	Clinical examination	6-7		1	1, 2, 3	
	21	Anatomy and pathological examination	8-10		1	1, 2, 3	
	22	Sampling and sample preparation for bacteriological techniques	11-14		1, 2	1, 2, 3	
	23	Isolation of bacteria	15-18		1, 2	1, 2, 3	
	24	Microscopical examination as diagnostic tool	19-20		1	1, 2, 3	
	25	Biochemical and serological identification of bacteria	21-23		1, 2, 4	1, 2, 3	
	26	PCR	24-26		1, 2, 4	1, 2, 3	
	27	Principles of prevention and control of bacterial diseases	27-29		1, 6, 7	1, 2, 3	
	28	Antimicrobial sensitivity testing	30-32		1, 2, 3, 7	1, 2, 3	
	29	Medication against bacterial infection	33-34		1, 2, 3, 6, 7	1, 2, 3	
	30	Different drugs interaction	35-36		1, 5	1, 2	
	Student activity		Along the course	1, 2, 3, 4, 5	1, 2, 3, 4, 5 6, 7	2	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-171
Course title :	Viral Diseases of Poultry
Program title:	MVSc
Contact hours/ week	4 hours per week (2 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques related to diagnosis and control of viral diseases of poultry and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about viral diseases of poultry.
3. Be aware about his role in community development and environment protection and match scientifically the national and international changes.
4. Detect and solve the problems of viral causes facing poultry industry based on scientific and research evidence.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of viral diseases of poultry.

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. Acquire the advanced knowledge about viral diseases of poultry and their pathogenesis and interaction with other diseases.

a.2. Recognize different practices in diagnosis, treatment, prevention and control viral diseases of poultry and its relation to environmental protection.

a.3. Recognize up to date scientific researches related to poultry diseases of viral origin and define the advanced scientific means serving the field of viral diseases of poultry.

a.4. Identify efficiently regulations and ethics related to diagnosis and treatment of viral diseases of poultry and how to implement them in scientific research.

a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual skills:

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

b.1. Evaluate analytically available information in order to diagnose, prevent and control viral diseases facing poultry industry.

b.2. Plan how to overcome inadequacy of some resources to solve problems in the field of poultry diseases.

Course specification of postgraduate

b.3. Integrate different knowledge to prevent and control viral diseases of poultry.
b.4. Design a scientific research plan.
b.5. Evaluate different risks in poultry farms with a special regard to viral ones.
b.6. Plan for enhancing poultry performance.
b.7. Suggest the appropriate decision to solve field problems.

c- Professional and practical skills:

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

c.1. Perform efficiently the conventional and advanced techniques used in diagnosis, prevention and control of viral diseases of poultry.
c.2. Write and evaluate diagnostic reports for field cases.
c.3. Apply the principles of good experimental design and analyze and evaluate research project.
c.4. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively and use of information technology in the development of professional practices.
d.2. Assess him/herself and learn how to detect his/her learning requirements.
d.3. Use different facilities for gaining knowledge and information.
d.4. Recognize regulations and indicators for performance evaluation.
d.5. Mange time efficiently and work in research groups.
d.6. Lead a team work in different professional practice.
d.7. Have continuous self-learning.

Course specification of postgraduate

4-Topics and contents

Course	Topic	week	No. of hours	Lectures (hr)	Practical (hr)
Poultry and rabbit diseases (Lec. 2h./week, Pract 2h./week)	Avian Influenza	1-3	6	6	-
	Newcastle Disease	4-5	4	4	-
	Avian Infectious Bronchitis	6-7	4	4	-
	Infectious Laryngeotracheitis	8	2	2	-
	Avian pox	9-10	4	4	-
	Chicken Infectious Anemia	11	2	2	-
	Infectious Bursal Disease	12	2	2	-
	Marek's Disease	13-14	4	4	-
	Avian Leucosis / Sarcoma and Reticuloendotheliosis	15-17	6	6	-
	Lympho-proliferative diseases of turkey	18-19	4	4	
	Avian Encephalomyelitis	20	2	2	
	Adeno Viruses Infection	21-23	6	6	
	Pneumo virus	24	2	2	
	REO viruses	25	2	2	-
	Turkey Haemorrhagic Enteritis	26	2	2	-
	Viral Diseases of waterfowls	27-30	8	8	-
	Immunity against viral diseases	31-32	4	4	
	Update of the current status of chosen viral diseases in Egypt	33-34	4	4	-
	Bases of writing a thesis and research plan	35-36	4	4	-
	How to handle zoonotic viruses of avian origin	1-2	4	-	4
	How to carry out an investigation of field problem	3-5	6	-	6
	Clinical examination of field samples	6-7	4	-	4
	Anatomy and pathological examination and bases of immunohistochemistry	8-10	6	-	6
	Sampling and sample preparation for virus isolation and identification	11-14	8	-	8
	Laboratory isolation of different avian viruses	15-18	8	-	8
	Electron microscopic examination as a diagnostic tool	19-20	4	-	4
	Serological identification of viruses	21-23	6	-	6
	Conventional and real-time PCR and RT-PCR, Gene sequencing	24-26	6	-	6
	Estimation of virus pathogenicity and virus titration	27-29	6	-	6
	Estimation of immunity against viral diseases of poultry	30-32	6	-	6
	Principles of disease prevention and control in poultry farms	33-34	4	-	4
	Vaccination and the use of genetic engineering for vaccine development	35-36	4	-	4
	Total		144	72	72

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:
Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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, b4, b5, b6, b7		
Practical Exam		b1, b2, b3, b4, b5, b6, b7	c1, c2, c3, c4	
Oral Exam	a1, a2, a3, a4, a5	b1, b2, b3, b4, b5, b6, b7		d1, d2, d3, d4, d5, d6, d7

6.2. Assessment schedules

Method	Week(s)
Written exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 4 hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	1	Avian Influenza	1-3	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	1,2,3,4,5,6,7
	2	Newcastle Disease	4-5	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	3	Avian Infectious Bronchitis	6-7	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	4	Infectious Laryngeotracheitis	8	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	5	Avian pox	9-10	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	6	Chicken Infectious Anemia	11	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	7	Infectious Bursal Disease	12	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	8	Marek's Disease	13-14	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	9	Avian Leucosis / Sarcoma and Reticuloendotheliosis	15-17	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	10	Lympho-proliferative diseases of turkey	18-19	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	11	Avian Encephalomyelitis	20	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	12	Adeno Viruses Infection	21-23	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	13	Pneumo virus	24	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	14	REO viruses	25	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	15	Turkey Haemorrhagic Enteritis	26	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7	-	
	16	Viral Diseases of waterfowls	27-30	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7		
	17	Immunity against viral diseases	31-32	1, 2, 3, 4, 5	1, 2, 3, 5, 6, 7		
	18	Update of the current status of chosen viral diseases in Egypt	33-34	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 7	4	
	19	Bases of writing a thesis and research plan	35-36	1, 2, 3, 4, 5	2, 3, 4	2, 3, 4	
	20	How to handle zoonotic viruses of avian origin	1-2	1, 2, 3, 4, 5	1, 2, 3, 5	1, 2, 3	
	21	How to carry out an investigation of field problem	3-5	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6, 7	1, 2, 3	
	22	Clinical examination of field samples	6-7	1, 2, 3, 4, 5	1	1, 2, 3	
	23	Anatomy and pathological examination and bases of immunohistochemistry	8-10	1, 2, 3, 4, 5	1	1, 2, 3	
	24	Sampling and sample preparation for virus isolation and identification	11-14	1, 2, 3, 4, 5	1, 2	1, 2, 3	
	25	Laboratory isolation of different avian viruses	15-18	1, 2, 3, 4, 5	1, 2	1, 2, 3	
	26	Electron microscopic examination as a diagnostic tool	19-20	1, 2, 3, 4, 5	1	1, 2, 3	
	27	Serological identification of viruses	21-23	1, 2, 3, 4, 5	1, 2, 4	1, 2, 3	
	28	Conventional and real-time PCR and RT-PCR, Gene sequencing	24-26	1, 2, 3, 4, 5	1, 2, 4	1, 2, 3	
	29	Estimation of virus pathogenicity and virus titration	27-29	1, 2, 3, 4, 5	1, 2, 4	1, 2, 3	
	30	Estimation of immunity against viral diseases of poultry	30-32	1, 2, 3, 4, 5	1, 2, 4	1, 2, 3	
	31	Principles of disease prevention and control in poultry farms	33-34	1, 2, 3, 4, 5	1, 6, 7	1, 2, 3	
	32	Vaccination and the use of genetic engineering for vaccine development	35-36	1, 2, 3, 4, 5	1, 2, 3, 6, 7	1, 2, 3	
	Student activity		Along the course	1, 2, 3, 4, 5	1, 2, 3, 4, 5 6, 7	2	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-172
Course title :	Mycotic Diseases of Poultry
Program title:	MVSc
Contact hours/ week	4 hours per week (2 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques related to diagnosis and control of mycotic diseases and its toxins of poultry and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about mycotic diseases of poultry.
3. Be aware about his role in community development and environment protection and match scientifically the national and international changes.
4. Detect and solve the problems of mycotic causes facing poultry industry based on scientific and research evidence.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of mycotic diseases of poultry.

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. Acquire the advanced knowledge about mycotic diseases of poultry and their pathogenesis and interaction with other diseases.

a.2. Recognize up to date scientific researches related to fungal diseases and mycotoxin of poultry and related sciences.

a.3. Recognize different practices in diagnosis, treatment, prevention and control fungal diseases of poultry and its relation to environmental protection.

a.4. Recognize up to date scientific researches related to poultry diseases of fundal origin and define the advanced scientific means serving the field of fungal diseases of poultry.

a.5. Identify efficiently regulations and ethics related to diagnosis control and prevention of fungal diseases of poultry and how to implement them in scientific research.

a.6. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related to diagnosis, prevention and control of fungal diseases, mycotoxin of poultry and interpret it to solve the related problems.

b.2. Merge the acquired knowledge about fungal diseases and mycotoxin of poultry to solve the professional problems.

Course specification of postgraduate

b.3. Evaluate different risks in poultry farms with a special regard to fungal ones.
b.4. Properly plan for performance enhancement in diagnosis, prevention and control of fungal diseases and mycotoxin of poultry.
b.5. Suggest the appropriate decision to solve field problems.

c- Professional and practical skills:

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

c.1. Perform different conventional and advanced skills and techniques used in diagnosis, prevention and control of mycotic diseases and mycotoxin in poultry.
c.2. Evaluate diagnostic reports for field cases.
c.3. Assess different available tools and methods applied in diagnosis of fungal diseases of poultry.
c.4. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively using different means.
d.2. Properly use the information technologies for development of his/her professional abilities.
d.3. Assess him/herself and learn how to detect his/her learning requirements.
d.4. Use different facilities for gaining knowledge and information.
d.5. Have continuous self-learning.
d.6. Create rules and indicators for evaluation of the performance of others.
d.7. Mange time efficiently and work in research groups.

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

4-Topics and contents

Course	Topics	Week	Total (hr)	Lectures (hr)	Practical (hr)
Poultry and rabbit diseases (Lec. 2h./week, Pract 2h./week)	Aspergillosis	1-3	6	6	-
	Candidiasis	4-6	6	6	
	Favus	7-9	6	6	-
	Dactylariosis	10-12	6	6	-
	Aflatoxicosis	13-14	4	4	-
	Ochratoxicosis	15-16	4	4	-
	Ergotism	17-18	4	4	-
	Fusarium mycotoxins (Trichothecenes, Fumonisins, Moniliformin and Fusarochromanone)	19-20	4	4	-
	Zearalenone and other Fusarium mycotoxins	21-22	4	4	-
	Citrinin	23-24	6	6	
	Oosporein	25-27	4	4	-
	Other Mycotoxins and Toxigenic Fungi	28-29	8	8	-
	Antifungal immunology	30-33	6	6	-
	Bases of writing a thesis and research plan	33-35	2	2	-
	Update of the current status of chosen fungal diseases in poultry flocks	36	2	2	-
	How to carry out an investigation of field problem	1-4	8	-	8
	Clinical examination	5-7	6	-	6
	Anatomy and pathological examination	8-9	4	-	4
	Sampling and sample preparation	10-12	6	-	6
	Isolation and identification of the causative agent	13-14	4	-	4
	Microscopical examination as diagnostic tool	15-17	6	-	6
	PCR, Real-time PCR and gene sequencing	18-21	8	-	8
	Estimation of the levels of mycotoxins in poultry feeds (ELISA and Chromatography)	22-25	8	-	8
	Differential diagnosis	26-27	4	-	4
	Principles of disease prevention and control	28-30	6	-	6
	Treatment of mycotic disease	31-33	6	-	6
	Prevention of mycotoxicosis	34-36	6	-	6
	Total		144	72	72

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:

Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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-a6	b1-b2-b3-b4		
Practical Exam		b1-b2-b3-b4-b5	c1-c2-c3-c4	
Oral Exam	a1-a2-a3- a4-a5-a6	b1-b2-b3-b4-b5		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Written exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Beni Suef University
Faculty of Veterinary Medicine

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 4 hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	1	Aspergillosis	1-3	1, 2, 3	1, 2, 3	-	1, 2, 3, 4, 5, 6, 7
	2	Candidiasis	4-6	1, 2, 3	1, 2, 3	-	
	3	Favus	7-9	1, 2, 3	1, 2, 3	-	
	4	Dactylariosis	10-12	1, 2, 3, 6	1, 2, 3	-	
	5	Aflatoxicosis	13-14	1, 2, 3	1, 2, 3	-	
	6	Ochratoxicosis	15-16	1, 2, 3	1, 2, 3	-	
	7	Ergotism	17-18	1, 2, 3	1, 2, 3	-	
	8	Fusarium mycotoxins (Trichothecenes, Fumonisins, Moniliformin and Fusarochromanone)	19-20	1, 2, 3	1, 2, 3	-	
	9	Zearalenone and other Fusarium mycotoxins	21-22	1, 2, 3	1, 2, 3	-	
	10	Citrinin	23-24	1, 2, 3	1, 2, 3	-	
	11	Oosporein	25-27	1, 2, 3	1, 2, 3	-	
	12	Other Mycotoxins and Toxigenic Fungi	28-29	1, 2, 3	1, 2, 3	-	
	13	Antifungal immunology	30-33	1, 2, 3	1, 2, 3	-	
	14	Bases of writing a thesis and research plan	33-35	1, 2, 3	1, 2, 3	2, 4	
	15	Update of the current status of chosen fungal diseases in poultry flocks	36	1, 2, 3	1, 2, 3	2, 4	
	16	How to carry out an investigation of field problem	1-4	2, 4, 5	1, 2, 4	1, 2, 3, 4	
	17	Clinical examination	5-7	2, 4	1	1, 2, 3	
	18	Anatomy and pathological examination	8-9	1, 2, 3	1	1, 2, 3	
	19	Sampling and sample preparation	10-12	3, 4, 5	1, 2	1, 2, 3	
	20	Isolation and identification of the causative agent	13-14	3, 4, 5	1	1, 2, 3	
	21	Microscopical examination as diagnostic tool	15-17	3, 4	1, 2, 4	1, 2, 3	
	22	PCR, Real-time PCR and gene sequencing	18-21	3, 4	1, 2,4	1, 2, 3	
	23	Estimation of the levels of mycotoxins in poultry feeds (ELISA and Chromatography)	22-25	3, 4, 5	1	1, 2, 3	
	24	Differential diagnosis	26-27	3, 4	1, 5	1, 2, 3	
	25	Principles of disease prevention and control	28-30	5, 6	1, 2, 4	1, 2, 3	
	26	Treatment of mycotic disease	31-33	3, 4, 5	2, 5	1, 2, 3	
	27	Prevention of mycotoxicosis	34-36	1, 2	2, 5	1, 2, 3	
	Student activity		Along the course	3, 5, 6	3, 4, 5	2	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-173
Course title :	Parasitic Diseases of Poultry
Program title:	MVSc
Contact hours/ week	3 hours per week (1 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques related to diagnosis and control of parasitic diseases of poultry and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about parasitic diseases of poultry.
3. Be aware about his role in community development and environment protection and match scientifically the national and international changes.
4. Detect and solve the problems of parasitic causes facing poultry industry based on scientific and research evidence.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of parasitic diseases of poultry.

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. Acquire the advanced knowledge about parasitic diseases of poultry and their pathogenesis and interaction with other diseases.

a.2. Recognize different practices in diagnosis, treatment, prevention and control parasitic diseases of poultry and its relation to environmental protection.

a.3. Recognize up to date scientific researches related to poultry diseases of parasitic origin and define the advanced scientific means serving the field of parasitic diseases of poultry.

a.4. Identify efficiently regulations and ethics related to diagnosis control and prevention of parasitic diseases of poultry and how to implement them in scientific research.

a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related to diagnosis, prevention and control of parasitic diseases of poultry and interpret it to solve the related problems.

b.2. Merge the acquired knowledge about parasitic diseases of poultry to solve the professional problems.

b.3. Evaluate different risks in poultry farms with a special regard to parasitic ones.

Course specification of postgraduate

b.4. Properly plan for performance enhancement in diagnosis, prevention and control of parasitic diseases of poultry.
b.5. Suggest the appropriate decision to solve field problems.

c- Professional and practical skills:

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

c.1. Perform different conventional and advanced skills and techniques used in diagnosis, prevention and control of parasitic diseases of poultry.
c.2. Write and evaluate diagnostic reports for field cases.
c.3. Assess different available tools and methods applied in diagnosis of parasitic diseases of poultry.
c.4. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively using different means.
d.2. Properly use the information technologies for development of his/her professional abilities.
d.3. Assess him/herself and learn how to detect his/her learning requirements.
d.4. Use different facilities for gaining knowledge and information.
d.5. Have continuous self-learning.
d.6. Create rules and indicators for evaluation of the performance of others.
d.7. Mange time efficiently and work in research groups.

Course specification of postgraduate

4-Topics and contents

Course	Topics	week	Total (hr)	Lectures (hr)	Practical (hr)
Poultry and rabbit diseases (Lec. 1h./week, Pract 2h./week)	External parasites	1-4	4	4	-
	Nematodes	5-8	4	4	-
	Cestodes	9-12	4	4	-
	Coccidiosis	13-18	6	6	-
	Histomoniasis	19-20	2	2	-
	Cryptosporidiosis	21-22	2	2	-
	Blood parasites	23-26	4	4	-
	Other protozoan infestation	27-30	4	4	-
	Parasitic immunology	31-34	4	4	-
	Toward safe use of insecticides	35-36	2	2	-
	Modern methods for diagnosis of parasitic diseases	1-3	6	-	6
	How to carry out an investigation of field problem	4-6	6	-	6
	Clinical examination, differential diagnosis	7-9	6	-	6
	Anatomy and pathological examination	10-13	8	-	8
	Sampling and sample preparation	14-16	6	-	6
	Fecal egg count	17-18	4	-	4
	Microscopical examination of blood film	19-21	6	-	6
	Identification of different stages of different parasites	22-23	4	-	4
	Use of molecular methods in diagnosis of parasitic diseases	24-26	6	-	6
	Estimation of immunity to parasitic diseases	27-28	4	-	4
	Principles of disease prevention and control	29-31	6	-	6
	Anthelmentics and insecticides	32-34	6	-	6
	Anti-Protozoal drugs	35-36	4	-	4
	Total		108	36	72

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:

Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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-b4		
Practical Exam		b1-b2-b3-b4-b5	c1- c2- c3-c4	
Oral Exam	a1- a2- a3- a4-a5	b1-b2-b3-b4-b5		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Written Exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

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- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 3 hours / weak (Lec. 1hr/wk - Pract. 2hr/wk)	1	External parasites	1-4	1, 2, 3	1, 2, 3, 4	-	1, 2, 3, 4, 5, 6,7
	2	Nematodes	5-8	1, 2, 3	1, 2, 3, 4	-	
	3	Cestodes	9-12	1, 2, 3	1, 2, 3, 4	-	
	4	Coccidiosis	13-18	1, 2, 3	1, 2, 3, 4	-	
	5	Histomoniasis	19-20	1, 2, 3	1, 2, 3, 4	-	
	6	Cryptosporidiosis	21-22	1, 2, 3	1, 2, 3, 4	-	
	7	Blood parasites	23-26	1, 2, 3	1, 2, 3, 4	-	
	8	Other protozoan infestation	27-30	1, 2, 3	1, 2, 3, 4	-	
	9	Parasitic immunology	31-34	1, 2, 3	1, 2, 3, 4	-	
	10	Toward safe use of insecticides	35-36	5	1, 2, 5	1, 3	
	11	Modern methods for diagnosis of parasitic diseases	1-3	2, 3, 4	1, 2, 5	1, 2, 3, 4	
	12	How to carry out an investigation of field problem	4-6	3, 4, 5	1, 2, 5	1, 2, 3, 4	
	13	Clinical examination, differential diagnosis	7-9	1, 2, 3	1, 2, 5	1, 3	
	14	Anatomy and pathological examination	10-13	1, 2, 3	1, 2, 5	1, 3	
	15	Sampling and sample preparation	14-16	2	1, 2, 5	1, 3	
	16	Fecal egg count	17-18	3, 4	1, 2, 5	1, 3	
	17	Microscopical examination of blood film	19-21	4	1, 2, 5	1, 3	
	18	Identification of different stages of different parasites	22-23	4	1, 2, 5	1, 3	
	19	Use of molecular methods in diagnosis of parasitic diseases	24-26	4	1, 2, 5	1, 2, 3, 4	
	20	Estimation of immunity to parasitic diseases	27-28	1, 2	1, 2, 5	1, 3	
	21	Principles of disease prevention and control	29-31	3, 4, 5	1, 2, 5	1, 3	
	22	Anthelmentics and insecticides	32-34	1, 2, 5	1, 2, 5	1, 3	
	23	Anti-Protozoal drugs	35-36	1	1, 2, 5	1, 3	
	Student activity		Along the course	3, 5	3, 4, 5	2	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-174
Course title :	Nutritional Disorders of Poultry
Program title:	MVSc
Contact hours/ week	3 hours per week (1 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

Use efficiently the most recent techniques related to diagnosis and control nutritional diseases of poultry

1. and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about nutritional diseases of poultry.
3. Be aware about his role in community development and environment protection and match scientifically the national and international changes.
4. Detect and solve the problems of nutritional diseases of poultry facing poultry industry based on scientific and research evidence.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of nutritional diseases of poultry.

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. Acquire the advanced knowledge about nutritional diseases of poultry and their pathogenesis and interaction with other diseases.

a.2. Recognize different practices in diagnosis, treatment, prevention and control nutritional diseases of poultry and its relation to environmental protection.

a.3. Recognize up to date scientific researches related to nutritional diseases of poultry and define the advanced scientific means serving the field of nutritional diseases of poultry.

a.4. Identify efficiently regulations and ethics related to diagnosis control and prevention of nutritional diseases of poultry and how to implement them in scientific research.

a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related to diagnosis, prevention and control of nutritional diseases of poultry and interpret it to solve the related problems.

b.2. Merge the acquired knowledge about nutritional diseases of poultry to solve the professional problems.

Course specification of postgraduate

b.3. Evaluate different risks in poultry farms with a special regard to nutritional disorders.
b.4. Properly plan for performance enhancement in diagnosis, prevention and control of nutritional diseases of poultry.
b.5. Suggest the appropriate decision to solve field problems.

c- Professional and practical skills:

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

c.1. Perform different conventional and advanced skills and techniques used in diagnosis, prevention and control of nutritional diseases of poultry.
c.2. Write and evaluate diagnostic reports for field cases.
c.3. Assess different available tools and methods applied in diagnosis of nutritional diseases of poultry.
c.4. Write efficiently scientific essay

d- General and transferable skills:

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

d.1. Communicate effectively using different means.
d.2. Properly use the information technologies for development of his/her professional abilities.
d.3. Assess him/herself and learn how to detect his/her learning requirements.
d.4. Use different facilities for gaining knowledge and information.
d.5. Have continuous self-learning.
d.6. Create rules and indicators for evaluation of the performance of others.
d.7. Mange time efficiently and work in research groups.

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

4-Topics and contents

Course	Topics	week	Total (hr)	Lectures (hr)	Practical (hr)
Poultry and rabbit diseases (Lec. 1h./week, Pract 2h./week)	Protein deficiency and problems caused by excess protein intake	1-4	4	4	-
	Carbohydrates deficiency and problems caused by excess energy level in poultry feed	5-8	4	4	-
	Fat deficiency and problems caused by excess fat level in poultry feed	9-12	4	4	-
	Fat soluble vitamins deficiency	13-16	4	4	-
	Water soluble vitamins deficiency	17-20	4	4	-
	Hyper vitaminosis	21-23	3	3	-
	Minerals deficiency and mineral intoxication	24-26	3	3	-
	Effect of nutritional disorders on the performance of avian immune system	27-29	3	3	-
	Bases of writing a thesis and research plan	30-33	4	4	-
	How to improve feed quality, digestibility and absorption rates (Assay)	34-36	3	3	-
	How to carry out an investigation of field problem	1-3	6	-	6
	Clinical examination	4-7	8	-	8
	Anatomy and gross pathological examination	8-11	8	-	8
	Histopathology for diagnosis of nutritional disorders	12-13	4	-	4
	Differential diagnosis	14-16	6	-	6
	Poultry feed stuffs	17-20	8	-	8
	Feed analysis	21-23	6	-	6
	Bases of poultry feed formulation	24-27	8	-	8
	Quality control in poultry feed processing factories	28-30	6	-	6
	Principles of disease prevention and control	31-33	6	-	6
	Role of growth promoters and other additives in correction of nutritional deficiency	34-36	6	-	6
	Total		108	36	72

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:
Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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-b4		
Practical Exam		b1-b2-b3- b4-b5	c1-c2-c3-c4	
Oral Exam	a1-a2-a3-a4-a5	b1-b2-b3-b4-b5		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Written Exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

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- www.aaap.net
- www.poultrydiseases.net
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- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Beni Suef University
Faculty of Veterinary Medicine

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 3 hours / weak (Lec. 1hr/wk - Pract. 2hr/wk)	1	Protein deficiency and problems caused by excess protein intake	1-4	1, 2, 3	1, 2, 3	-	1, 2, 3, 4, 5, 6,7
	2	Carbohydrates deficiency and problems caused by excess energy level in poultry feed	5-8	1, 2, 3	1, 2, 3	-	
	3	Fat deficiency and problems caused by excess fat level in poultry feed	9-12	1, 2, 3	1, 2, 3	-	
	4	Fat soluble vitamins deficiency	13-16	1, 2, 3	1, 2, 3	-	
	5	Water soluble vitamins deficiency	17-20	1, 2, 3	1, 2, 3	-	
	6	Hyper vitaminosis	21-23	1, 2, 3	1, 2, 3	-	
	7	Minerals deficiency and mineral intoxication	24-26	1, 2, 3	1, 2, 3	-	
	8	Effect of nutritional disorders on the performance of avian immune system	27-29	1, 2, 3	1, 2, 3	-	
	9	Bases of writing a thesis and research plan	30-33	1, 2, 3	1, 2, 3	1, 3, 4	
	10	How to improve feed quality, digestibility and absorption rates (Assay)	34-36	5	1, 2	1, 3, 4	
	11	How to carry out an investigation of field problem	1-3	2, 4, 5	1, 2, 4	1, 2, 3, 4	
	12	Clinical examination	4-7	2, 4	1, 2, 4	1, 2, 3	
	13	Anatomy and gross pathological examination	8-11	1, 2, 3	1	1, 3	
	14	Histopathology for diagnosis of nutritional disorders	12-13	3, 4, 5	1, 4	1, 3	
	15	Differential diagnosis	14-16	3, 4, 5	1, 2	1, 2, 3	
	16	Poultry feed stuffs	17-20	3, 4	1	1, 2, 3	
	17	Feed analysis	21-23	3	1, 2, 4	1, 2, 3	
	18	Bases of poultry feed formulation	24-27	3, 4, 5	1, 2, 4	1, 3	
	19	Quality control in poultry feed processing factories	28-30	3, 4	1	1, 2, 3	
	20	Principles of disease prevention and control	31-33	2, 3	1, 5	1, 3	
	21	Role of growth promoters and other additives in correction of nutritional deficiency	34-36	3, 4, 5	1, 2, 4	1, 2, 3	
	Student activity		Along the course	3, 5	3, 4, 5	2	

Beni Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-175
Course title :	Diseases of Wild and Migratory Birds
Program title:	MVSc
Contact hours/ week	3 hours per week (1 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques related to diagnosis and control of wild and migratory birds diseases and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about wild and migratory birds diseases.
3. Be aware about his role in community development and environment protection and match scientifically the national and international changes.
4. Detect and solve the problems of viral causes facing poultry industry based on scientific and research evidence.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control wild and migratory birds diseases..

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. Acquire the advanced knowledge about wild and migratory birds diseases and their pathogenesis and interaction with other diseases.

a.2. Recognize different practices in diagnosis, treatment, prevention and control of wild and migratory birds diseases and its relation to environmental protection.

a.3. Recognize up to date scientific researches related to wild and migratory birds diseases and define the advanced scientific means serving the field of wild and migratory birds.

a.4. Identify efficiently regulations and ethics related to diagnosis control and prevention of wild and migratory birds diseases and how to implement them in scientific research.

a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related to diagnosis, prevention, control of diseases of wild and migratory birds and interpret it to solve the related problems.

b.2. Merge the acquired knowledge about diseases of wild and migratory birds to solve the professional problems.

Course specification of postgraduate

b.3. Evaluate different risks in wild and migratory birds diseases.

b.4. Properly plan for performance enhancement in diagnosis, prevention and control of wild and migratory birds diseases.

b.5. Suggest the appropriate decision to solve field problems.

c- Professional and practical skills:

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

c.1. Perform different conventional and advanced skills and techniques used in diagnosis, prevention and control of diseases of wild and migratory birds and Identify different species of wild and migratory birds and their flyways

c.2. Write and evaluate diagnostic reports for field cases.

c.3. Assess different available tools and methods applied in diagnosis of diseases of wild and migratory birds.

c.4. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively using different means.

d.2. Properly use the information technologies for development of his/her professional abilities.

d.3. Assess him/herself and learn how to detect his/her learning requirements.

d.4. Use different facilities for gaining knowledge and information.

d.5. Have continuous self-learning.

d.6. Create rules and indicators for evaluation of the performance of others.

d.7. Mange time efficiently and work in research groups.

Beni Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

4-Topics and contents

Course	Topics	Week	Total (hr)	Lectures (hr)	Practical (hr)
Poultry and rabbit diseases (Lec. 1h./week, Pract 2h./week)	Different species of wild and migratory birds	1-3	9	3	6
	Flyways of migratory birds	4-5	6	2	4
	Viral diseases of wild and migratory birds	6-13	8	8	-
	Bacterial diseases of wild and migratory birds	14-21	8	8	-
	Mycotic diseases of wild and migratory birds	22-29	8	8	-
	Parasitic diseases of wild and migratory birds	30-36	7	7	-
	How to handle zoonotic pathogens of avian origin	6-9	8	-	8
	Clinical and postmortem examination	10-13	8	-	8
	Bacteriological examination	14-17	8	-	8
	Mycotic examination	18-20	6	-	6
	Virological examination	21-25	10	-	10
	Parasitological examination	26-28	6	-	6
	Advanced laboratory methods	29-31	6	-	6
	Bases of surveillance for a disease in wild and migratory birds	32-33	4	-	4
	Principle of disease prevention and control	34-36	6	-	6
	Total		108	36	72

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Assays and reviews

5.5. Discussion groups

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-a4-a5	b1-b2-b3-b4		
Practical Exam		b1-b2-b3-b4-b5	c1-c2-c3-c4	
Oral Exam	a1-a2-a3-a4-a5	b1-b2-b3-b4-b5		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Written exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Beni Suef University
Faculty of Veterinary Medicine

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 3 hours / weak (Lec. 1hr/wk - Pract. 2hr/wk)	1	Different species of wild and migratory birds	1-3	1, 2, 3, 4	1, 2, 3	1, 4	1, 2, 3, 4, 5, 6, 7
	2	Flyways of migratory birds	4-5	1, 2, 3, 4	1, 2, 3	1, 4	
	3	Viral diseases of wild and migratory birds	6-13	1, 2, 3, 4	1, 2, 3	-	
	4	Bacterial diseases of wild and migratory birds	14-21	1, 2, 3, 5	1, 2, 3	-	
	5	Mycotic diseases of wild and migratory birds	22-29	1, 2, 4	1, 2, 4	-	
	6	Parasitic diseases of wild and migratory birds	30-36	1, 2, 4	1, 2, 4	-	
	7	How to handle zoonotic pathogens of avian origin	6-9	1, 2, 4	1, 2, 5	1, 3	
	8	Clinical and postmortem examination	10-13	1, 2, 4	1, 2, 5	1, 2, 3	
	9	Bacteriological examination	14-17	1, 2, 4	1, 2, 5	1, 2, 3	
	10	Mycotic examination	18-20	1, 2, 4	1, 2, 5	1, 2, 3	
	11	Virological examination	21-25	1, 2, 4	1, 2, 5	1, 2, 3	
	12	Parasitological examination	26-28	1, 2, 4	1, 2, 5	1, 2, 3	
	13	Advanced laboratory methods	29-31	1, 2, 4	1, 2, 5	1, 2, 3	
	14	Bases of surveillance for a disease in wild and migratory birds	32-33	1, 2, 3, 5	1, 2, 3, 4, 5	1, 3, 4	
	15	Principle of disease prevention and control	34-36	1, 2, 4	1, 5	1, 4	
	Student activity		Along the course	3, 5	3, 4, 5	2, 3, 4	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-176
Course title :	Rabbit Diseases; Advanced Course
Program title:	MVSc
Contact hours/ week	4 hours per week (2 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques related to diagnosis and control of rabbit diseases.
2. Collect, manage and analyze the scientific data about bacterial, viral, parasitic, nutritional, Miscellaneous, mycotic diseases of rabbit together with other related topics in his/her professional practices.
3. Be aware about the current problems and recent theories in the field of different rabbit diseases.
4. Detect and solve the problems of rabbit diseases facing rabbit production industry based on scientific and research evidence.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of rabbit diseases.

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. Acquire the advanced knowledge about bacterial, viral, parasitic, nutritional, miscellaneous and mycotic diseases of rabbit and their pathogenesis and interaction with other diseases.

a.2. Recognize up to date scientific researches related to different rabbit diseases and define the advanced scientific means serving the field of rabbit diseases.

a.3. Outline principles and morals of scientific research and the bases of designing an experimental work using bacterial, viral and fungal isolate.

a.4. Define the advanced scientific means serving different fields of rabbit diseases.

a.5. Identify efficiently regulations and ethics related to diagnosis control and prevention of viral diseases of poultry and how to implement them in scientific research.

a.6. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related to diagnosis, prevention and control of bacterial, viral, parasitic, nutritional, Miscellaneous, mycotic diseases of rabbit and interpret it to solve the

related problems.

b.2. Merge the acquired knowledge about bacterial, viral, parasitic, mycotic diseases of rabbit to solve the professional problems.

b.3. Evaluate different risks in rabbit farms.

b.4. Properly plan for performance enhancement in diagnosis, prevention and control of viral diseases of poultry.

b.5. Suggest the appropriate decision to solve field problems.

c- Professional and practical skills:

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

c.1. Perform different conventional and advanced skills and techniques used in diagnosis, prevention and control of bacterial, viral, parasitic, nutritional, mycotic diseases of rabbit.

c.2. Write and evaluate diagnostic reports for field cases.

c.3. Assess different available tools and methods applied in diagnosis of different diseases in rabbit.

c.4. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively using different means.

d.2. Properly use the information technologies for development of his/her professional abilities.

d.3. Assess him/herself and learn how to detect his/her learning requirements.

d.4. Use different facilities for gaining knowledge and information.

d.5. Have continuous self-learning.

d.6. Create rules and indicators for evaluation of the performance of others.

d.7. Mange time efficiently and work in research groups.

Course specification of postgraduate

4-Topics and contents

Course	Topics	Week	Total (hr)	Lectures (hr)	Practical (hr)
Poultry and rabbit diseases (Lec. 2h./week, Pract 2h./week)	Viral diseases of rabbit	1-6	12	12	-
	Bacterial diseases of rabbit	7-12	12	12	-
	Mycotic diseases and mycotoxicosis in rabbit	13-17	10	10	-
	Parasitic diseases of rabbit	18-23	12	12	-
	Nutritional diseases of rabbit and bases of rabbit feed formulation	24-29	12	12	-
	Miscellaneous diseases and vices of rabbit	30-32	6	6	-
	Bases of writing a thesis and research plan (Assay)	33-34	4	4	-
	How of design vaccination schedule for rabbit (Assay)	35-36	4	4	-
	How to carry out an investigation of field problem	1-3	6	-	6
	Clinical and Postmortem examination of rabbit	4-8	10	-	10
	Virological examination of rabbit (Virus isolation, Electron microscopy, serological identification and molecular biology)	9-13	10	-	10
	Bacteriological examination of rabbit (Isolation, staining and light microscopy, serological identification and molecular biology)	14-18	10	-	10
	Mycotic examination and detection of mycotoxins in feed stuffs and feed analysis	19-21	6	-	6
	Parasitological examination of rabbit (covenantal and molecular methods)	22-25	8	-	8
	Differential diagnosis of rabbit diseases	26-29	8	-	8
	Principles of disease prevention and control	30-33	8	-	8
	Biosecurity and medication against rabbit diseases	34-36	6	-	6
	Total		144	72	72

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:

Visits to rabbit farms and feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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-a5-a6	b1- b2- b3-b4		
Practical Exam		b1- b2- b3-b4-b5	c1- c2- c3-c4	
Oral Exam	a1- a2- a3- a4-a5-a6	b1- b2- b3-b4-b5		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Written Exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	Prof. Azza A. Sawah

Beni Suef University
Faculty of Veterinary Medicine

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 4 hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	1	Viral diseases of rabbit	1-6	1, 2, 3	1, 2, 3	-	1, 2, 3, 4, 5, 6,7
	2	Bacterial diseases of rabbit	7-12	1, 2, 3	1, 2, 3	-	
	3	Mycotic diseases and mycotoxicosis in rabbit	13-17	1, 2, 3	1, 2, 3	-	
	4	Parasitic diseases of rabbit	18-23	1, 2, 3	1, 2, 3	-	
	5	Nutritional diseases of rabbit and bases of rabbit feed formulation	24-29	1, 2, 3, 4 , 6	1, 2, 3	-	
	6	Miscellaneous diseases and vices of rabbit	30-32	1, 2, 3	1, 2, 3	-	
	7	Bases of writing a thesis and research plan (Assay)	33-34	1, 2, 3	3, 4, 5	4	
	8	How of design vaccination schedule for rabbit (Assay)	35-36	5	1, 2, 5	4	
	9	How to carry out an investigation of field problem	1-3	2, 4 , 5 , 6	1, 2	1, 2, 3	
	10	Clinical and Postmortem examination of rabbit	4-8	1, 4	1, 2, 4	1, 2, 3	
	11	Virological examination of rabbit (Virus isolation, Electron microscopy, serological identification and molecular biology)	9-13	1, 2, 3	1	1, 2, 3	
	12	Bacteriological examination of rabbit (Isolation, staining and light microscopy, serological identification and molecular biology)	14-18	1, 2, 3	1	1, 3	
	13	Mycotic examination and detection of mycotoxins in feed stuffs and feed analysis	19-21	1, 2, 3	1, 2	1, 2, 3	
	14	Parasitological examination of rabbit (covenantal and molecular methods)	22-25	1, 2, 3	1	1, 2, 3	
	15	Differntial diagnosis of rabbit diseases	26-29	1, 2, 4	1, 2	1, 2, 3	
	16	Principles of disease prevention and control	30-33	3, 4, 5	1, 2, 5	1, 2, 3	
	17	Biosecurity and medication against rabbit diseases	34-36	3, 4, 5	1, 2, 5	1, 2, 3	
	Student activity		Along the course	3, 5, 6	3, 4, 5	2	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-177
Course title :	Prevention in the Field of Poultry Diseases
Program title:	MVSc
Contact hours/ week	4 hours per week (2 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques in the field of poultry diseases prevention and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about prevention in the field of poultry diseases with other related topics in his/her professional practices.
3. Be aware about his role in community development and environment protection and match scientifically the national and international changes in the field poultry diseases prevention
4. Detect and solve the problems through application of different methods of prevention and control.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of viral diseases of poultry.

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. Acquire the advanced knowledge about different sources of infection in poultry flocks and their pathogenesis and interaction with other diseases.

a.2. Recognize the different levels of biosecurity and the bases of vaccination and medication against different poultry diseases.

a.3. Recognize up to date scientific researches related to prevention of poultry diseases.

a.4. Identify efficiently the advanced scientific means serving the prevention of poultry diseases.

a.5. Understand the mutual influence between different professional practices and their impacts on the environment.

a.6. Characterize and understand the mutual influence between different professional practices and their impacts on the environment

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related poultry diseases prevention.

b.2. Merge the acquired knowledge about poultry diseases prevention.

b.3. Conduct a research study and/or write a scientific paper related to poultry sciences.
b.4. Asses different risk factors for each practice related to poultry industry.
b.5. Properly plan for performance enhancement in poultry diseases prevention including vaccination scheme and biosecurity program.

c- Professional and practical skills:

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

c.1. Perform different conventional and advanced skills and techniques used in poultry diseases prevention.
c.2. Write and evaluate vaccination scheme and biosecurity program for field cases.
c.3. Assess different available tools and methods applied in poultry diseases prevention.
c.4. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively using different means.
d.2. Properly use the information technologies for development of his/her professional abilities.
d.3. Assess him/herself and learn how to detect his/her learning requirements.
d.4. Use different facilities for gaining knowledge and information.
d.5. Have continuous self-learning.
d.6. Create rules and indicators for evaluation of the performance of others.
d.7. Mange time efficiently and work in research groups.

Course specification of postgraduate

4-Topics and contents

Course	Topics	Week	Total (hr)	Lectures (hr)	Practical (hr)
hPoultry and rabbit diseases (Lec. 2h./week, Pract 2h./week)	Sources of infection	1-2	4	4	-
	The avian immune system	3-4	4	4	-
	Host-parasite-environment relationship (assay)	5-6	4	4	-
	Assays to measure immunity	1-2	4	-	4
	Biosecurity	3-4	4	-	4
	Disinfection of poultry houses and equipment	5-6	4	-	4
	Insect control	7-8	8	4	4
	Rodent control	9-11	12	6	6
	Prevention and control of egg-borne diseases	12-14	12	6	6
	Management of breeder flock, hatchery and hatching eggs	15-16	8	4	4
	Poultry house management	17-18	8	4	4
	How to keep sanitary environments	19-20	8	4	4
	Control of air movement	21-22	8	4	4
	Litter removal and management	23-24	8	4	4
	Flock placement and management	25-26	8	4	4
	Alleviation of stress factors	27-28	8	4	4
	Elimination of carrier birds	29-30	8	4	4
	Hygienic disposal of dead bird	31-32	8	4	4
	Vaccination against poultry diseases	33-34	8	4	4
	Medication against poultry diseases	35-36	8	4	4
	Total		144	72	72

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:

Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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-a4-a5-a6	b1- b2- b3- b4		
Practical Exam		b1- b2- b3- b4-b5	c1- c2- c3-c4	
Oral Exam	a1- a2- a3- a4-a5-a6	b1- b2- b3-b4-b5		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Written Exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 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

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

Course specification of postgraduate

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

Course Coordinator	Head of Department
Dr. Salama Abohamra	**Prof. Azza A. Sawah**

Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 4 hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	1	Sources of infection	1-2	1, 2, 3	1, 2, 3	-	1, 2, 3, 4, 5, 6,7
	2	The avian immune system	3-4	1, 2, 3	1, 2, 3	-	
	3	Host-parasite-environment relationship (essay)	5-6	1, 2, 3	1, 2, 3	4	
	4	Assays to measure immunity	1-2	3, 4, 5, 6	1, 2, 3	1, 2, 3	
	5	Biosecurity	3-4	3, 4, 5, 6	1, 2, 3	1, 2, 3	
	6	Disinfection of poultry houses and equipments	5-6	3, 4, 5, 6	1, 2, 3	1, 2, 3	
	7	Insect control	7-8	1, 2, 5, 6	1, 2, 3	1, 2, 3	
	8	Rodent control	9-11	1, 2, 5, 6	1, 2, 3	1, 2, 3	
	9	Prevention and control of egg-borne diseases	12-14	1, 2, 5, 6	1, 2, 3	1, 2, 3	
	10	Management of breeder flock, hatchery and hatching eggs	15-16	1, 2, 3	1, 2, 3	1, 2, 3	
	11	Poultry house management	17-18	1, 2, 5, 6	1, 2, 3	1, 2, 3	
	12	How to keep sanitary environments	19-20	1, 2, 3	1, 2, 3	1, 2, 3	
	13	Control of air movement	21-22	1, 2, 5, 6	1, 2, 3	1, 2, 3	
	14	Litter removal and management	23-24	1, 2, 3	1, 2, 3	1, 2, 3	
	15	Flock placement and management	25-26	1, 2, 3	1, 2, 3	1, 2, 3	
	16	Alleviation of stress factors	27-28	4, 5, 6	2, 3, 4, 5	1, 2, 3	
	17	Elimination of carrier birds	29-30	1, 2, 5, 6	3, 4	1, 2, 3	
	18	Hygienic disposal of dead bird	31-32	1, 2, 5, 6	1, 2	1, 2, 3	
	19	Vaccination against poultry diseases	33-34	1, 2, 5, 6	1, 2	1, 2, 3	
	20	Medication against poultry diseases	35-36	1, 2, 5, 6	1, 2, 4	1, 2, 3	
	Student activity		Along the course	3, 5, 6	3, 4, 5	2,4	

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	M-178
Course title :	Laboratory diagnosis of Poultry Diseases
Program title:	MVSc
Contact hours/ week	4 hours per week (2 theoretical and 2 practical)
Approval Date	02-10-2018

2-Professional information

Overall aims of course:

This course aims to:

1. Use efficiently the most recent techniques and gain an experience in laboratory diagnosis of poultry diseases and improve the skills of scientific research.
2. Collect, manage and analyze the scientific data about poultry diseases together with other related topics in his/her professional practices.
3. Be aware about the current problems and recent theories in the field of poultry diseases.
4. Master different professional skills and techniques in lab diagnosis of poultry diseases.
5. Use efficiently and improve the available resources for high benefit achievements.
6. Develop communication skills and improve scientific co-operation in research groups.
7. Improve the academic and professional self-capabilities and IT skills.
8. Create a scientific environment.
9. Write scientific essays.
10. Have a commitment to regulations and ethics related to diagnosis, prevention and control of viral diseases of poultry.

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. Acquire the advanced knowledge about poultry diseases and their different lab techniques for diagnosis.
a.2. Know safety measures applied when handling hazardous substance.
a.3. Identify efficiently regulations , ethics and morals of scientific research and the bases of designing an experimental work.
a.4. Recognize up to date the advanced laboratory technique used in the field of poultry diseases.
a.5. Characterize and understand the mutual influence between different professional practices and their impacts on the environment.
a.6. Recognize different methods of sterilization used in different labs.

b- Intellectual skills:

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

b.1. Analyze and evaluate knowledge related to lab diagnosis of poultry diseases.
b.2. Merge the acquired knowledge in lab diagnosis of poultry diseases to solve the professional problems.
b.3. Conduct a research study and/or write a scientific paper related to poultry sciences.
b.4. Evaluate different risk factors for each practice related to poultry industry.

Course specification of postgraduate

b.5. Interpret the laboratory data obtained from specific test.

c- Professional and practical skills:

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

c.1. Perform different conventional and advanced skills and techniques used in lab diagnosis of poultry diseases.
c.2. Write and evaluate diagnostic reports for field cases.
c.3. Assess different available tools and methods applied in lab diagnosis of poultry diseases.
c.4. Perfectly handle and manage experimental hosts and apply an experimental work.
c.5. Apply proper sampling, sample transport, processing and preservation.
c.6. Write efficiently scientific essay.

d- General and transferable skills:

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

d.1. Communicate effectively using different means.
d.2. Properly use the information technologies for development of his/her professional abilities.
d.3. Assess him/herself and learn how to detect his/her learning requirements.
d.4. Use different facilities for gaining knowledge and information.
d.5. Have continuous self-learning.
d.6. Create rules and indicators for evaluation of the performance of others.
d.7. Mange time efficiently and work in research groups.

Course specification of postgraduate

4-Topics and contents

Course	Topics	Week	Total (hr)	Lectures (hr)	Practical (hr)
hPoultry and rabbit diseases (Lec. 2h./week, Pract 2h./week)	Laboratory diagnostic scheme	1	4	2	2
	Safety by work in lab (essay)	2	4	2	2
	Issues and methods of sterilization	3-4	8	4	4
	Sampling, sample transport, processing and preservation	5	4	2	2
	Isolation and purification of different types of bacteria	6	4	2	2
	Microscopical examination of direct smear from blood or tissue fluids	7-8	8	4	4
	Microscopical examination of colony smear from bacterial culture using different staining techniques	9-10	8	4	4
	Biochemical identification of bacteria	11	4	2	2
	Estimation of the pathogenisity of bacteria	12	4	2	2
	Culturing of different types of fungi	13	4	2	2
	Microscopical examination as a tool for diagnosis of mycotic disease	14-15	8	4	4
	Estimation of levels of mycotoxins in poultry feed stuffs	16	4	2	2
	Microscopical identification of external parasites of poultry	17-18	8	4	4
	Microscopical identification of eggs of helminthes of poultry and fecal parasitic egg count	19	4	2	2
	Microscopical examination of blood parasites in poultry	20	4	2	2
	Microscopical examination of other protozoan in poultry	21	4	2	2
	Isolation of different avian viruses (on embryonated eggs, tissue culture and laboratory animals)	22-23	8	4	4
	Laboratory identification of avian viruses (ELISA, AGPT, FAT, ……. etc)	24	4	2	2
	Estimation of virus pathogenicity	25	4	2	2
	Virus titration	26-27	8	4	4
	Serological testing for avian pathogens	28	4	2	2
	DIVA concept	29-30	8	4	4
	PCR and RT-PCR	31	4	2	2
	Special diagnostic methods (HA, HI test, ….. etc)	32	4	2	2
	Histopathology as a diagnostic tool	33-34	8	4	4
	Feed analysis	35-36	8	4	4
	Total		144	72	72

Course specification of postgraduate

5-Teaching and learning methods

5.1. Lectures: Depend on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. Practical sections:

- Clinical and necropsy examination of diseased and dead samples.
- Laboratory diagnosis of different poultry and rabbit diseases using suitable methods.
- Antimicrobial sensitivity testing.

5.3. Self-learning: Electronic learning, Seminars, scientific search on related websites, international, national and local journals, and related books in faculty library.

5.4. Training visits:
Visits to poultry farms and poultry feed processing plants.

5.5. Assays and reviews

5.6. Discussion groups

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-a6	b1- b2- b3- b4		
Practical Exam		b1- b2- b3- b4- b5	c1- c2- c3-c4-c5-c6	
Oral Exam	a1- a2- a3- a4-a5-a6	b1- b2- b3- b4-b5		d1-d2-d3-d4-d5-d6-d7

6.2. Assessment schedules

Method	Week(s)
Written Exam	53-55 Managed by Faculty administration
Practical exam	52 Managed by Department administration
Oral exam	53-55 Managed by Department administration

6.3. Weight of assessments

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

Course specification of postgraduate

7- List of references

7.1. Notes and books

None

7.2. Essential books:

- Diseases of Poultry, 13th ed. Iowa State Univ. Wiley Blackwell. By David E. Swayne, John R. Glisson, Larry R. McDougald, Lisa K. Nolan, David L. Suarez, and Venugopal Nair

7.3. Recommended texts

- Laboratory Manual for the Isolation and Identification of Avian Pathogens: BY David E. Swayne, John R. Glisson and Mark W. Jackwood

Journals:

- Avian diseases
- Avian pathology
- British poultry science
- Veterinary Bulletin
- Veterinary Microbiology

Websites:

- www.poultryhelp.com
- www.thepoultrysite.com
- www.canadianpoultry.com
- www.aaap.net
- www.poultrydiseases.net
- www.poultryconnection.com
- www.worldpoultry.com
- www.sciencedirect.com

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Course specification Matrix

	Topics		Week	Intended learning outcomes of course (ILOs)			
				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Poultry and rabbit diseases 4 hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	1	Laboratory diagnostic scheme	1	1, 3, 4	1, 2, 5	1, 3, 4	1, 2, 3, 4, 5, 6,7
	2	Safety by work in lab (essay)	2	1, 6, 2	1, 2, 3	4,6	
	3	Issues and methods of sterilization	3-4	1, 6, 2	3	4	
	4	Sampling, sample transport, processing and preservation	5	1, 6, 2	3	1, 3, 4, 5	
	5	Isolation and purification of different types of bacteria	6	1, 2, 4,5	1, 2, 5	1, 3, 4, 5	
	6	Microscopical examination of direct smear from blood or tissue fluids	7-8	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	7	Microscopical examination of colony smear from bacterial culture using different staining techniques	9-10	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	8	Biochemical identification of bacteria	11	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	9	Estimation of the pathogenicity of bacteria	12	1, 2, 4, 5	1, 2, 5	1, 3, 4	
	10	Culturing of different types of fungi	13	1, 2, 4, 5, 6	1, 2, 5	1, 3, 4, 5	
	11	Microscopical examination as a tool for diagnosis of mycotic disease	14-15	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	12	Estimation of levels of mycotoxins in poultry feed stuffs	16	1, 2, 4, 5	1, 2, 5	1, 3, 4	
	13	Microscopical identification of external parasites of poultry	17-18	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	14	Microscopical identification of eggs of helminthes of poultry and fecal parasitic egg count	19	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	15	Microscopical examination of blood parasites in poultry	20	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	16	Microscopical examination of other protozoan in poultry	21	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	17	Isolation of different avian viruses (embryonated eggs, tissue culture and laboratory animals)	22-23	1, 2, 4, 5	1, 2, 5	1, 3, 4, 5	
	18	Laboratory identification of avian viruses (ELISA, AGPT, FAT, ……. etc)	24	1, 2, 4, 5	1, 2, 5	1, 2, 3, 4, 5	
	19	Estimation of virus pathogenicity	25	1, 3, 2, 4, 5	1, 2, 3, 4, 5	1, 3, 4	
	20	Virus titration	26-27	1, 2, 4	1, 2, 5	1, 3, 4	
	21	Serological testing for avian pathogens	28	1, 2, 4	1, 2, 5	1, 3, 4	
	22	DIVA concept	29-30	1, 2, 4	1, 2, 5	1, 3, 4	
	23	PCR and RT-PCR	31	1, 2, 4	1, 2, 5	1, 2, 3, 4, 5	
	24	Special diagnostic methods (HA, HI test, ….. etc)	32	1, 2, 4	1, 2, 5	1, 2, 3, 4	
	25	Histopathology as a diagnostic tool	33-34	1, 2, 4	1, 2, 5	1, 2, 3, 4	
	26	Feed analysis	35-36	1, 2, 4, 5	1, 2, 5	1, 2, 3, 4, 5	
	Student activity		Along the course	3, 5, 6	3, 4, 5	2	