Beni-Suef University

Faculty of Veterinary Medicine

Department of Theriogenology

DIPLOMA PROGRAMME SPECIFICATION
2017-2018

University: Beni-Suef
Faculty: Veterinary Medicine

A- Administrative Information

1. Programme title: Diploma of Vet. Med. Sciences (Gynaecology)
2. Award/degree: Diploma
3. Department responsible: Theriogenology
4. Coordinator: Prof. Dr. Saber Mohamed Abd-Allah
5. External evaluator(s) :
6. Date of most recent approval of programme specification by the Faculty Council:

B- Professional Information

1. Programme aims: The Diploma programme support the postgraduate student ability to:

- To assess the female reproductive potential, eliminate the infertility problems.
- Introducing the academic background and practical experience about the female reproduction in different animal species particularly farm animals and how to manage a farm from the breeding point of view.

2. Intended learning outcomes (ILOs) for programme

a- Knowledge and understanding:

By the end of the Diploma program, the postgraduate must be able to:

a-1- Knowledge about Gynaecology.

a-2- Knowledge about the management of breeding females and the its economics

a-3- Understand the relationship between successful breeding programs and the profitability of the dairy farms..
a-4- Knowledge about diagnosis and control of different forms of female infertility.
a-5- Describe the macroscopic & microscopic tissue changes of the bacterial and viral diseases affecting the male & female genital system.
a-6- Describe the light and electron microscopic structures of the different organs of genital system.
a-7- Conclude the nature, structure and classification and basis of laboratory diagnosis of different Parasitic, bacterial and viral agents affecting reproduction of farm animals.

b- Intellectual skills

By the end of the Diploma program, the postgraduate must be able to:

b-1- Capability for creative thinking for developing of breeding technologies.
b-2- Identification of cases of infertility and how to treat.
b-3- Creative thinking for keeping breeding stock.
b- 4- Identification of female genital diseases and suitable control measures.
b-5- Differentiate between the different pathological alterations in different 1ry sex and secondary sex organs in male and female and male genital tract.
b-6- Describe the micro and macroscopic structure of different organs of genital system
b-7- Suggest the solutions of the problems concerning bacterial and viral diseases affecting the genital system.

c- Professional and practical skills

By the end of the Diploma program, the postgraduate must be able to:

c-1- Gynaecological investigation and treatment of infertile cases.
c-2- Synchronization of estrus.
c-3- Control of heat stress.
c-4- Assessment of the reproductive performance of females.
c-5- Examine and identify the macroscopic pathological criteria of the genital system.
c-6- examine both micro and macroscopic organs of genital system
c-7- Collect specimen from genital organs for laboratory diagnosis of parasitic ,bacteriological and virological examination.
c-8- Hormonal control of the sexual cycle in the female.

d- General and transferable skills

By the end of the Diploma program, the postgraduate must be able to:

d-1- Management of a dairy cow project
d-2- Use of new technological tools for keeping normal fertility in famales.
d-3-Identifying & controlling of forms of infertility.
d-4-Capability for written and oral communication with Gyanecology specialists.
d-5-Group working in the field of private business.

3- Academic standards

* The faculty mission, vision and strategic objective are confirmed to the academic standard. The learning outcomes are inline with the department and the faculty mission.
* Postgraduates NARS (February 2009) Diploma 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, BeniSuef University, BeniSuef, Egypt are selected to confirm the appropriateness of the academic standards .

4 – Curriculum structure and content.

5.1) Programme duration: 1years

5.2) Programme structure:

Title	Lecture	Practical	Total
1-Gynaecology	2	2	4
2-Pathology of Genital System	1	1	2
3-Physiology of Reproduction	2	-	2
4-Histology and anatomy of female reproductive system	1	2	3
5-Applied Parasitology and Microbiology	1	2	3
Total	7	7	14

5- Programme – course ILOS Matrix

Title	a1	a2	a3	a4	a5	a6	a7	b1	b2	b3	b4	b5	b6	b7	c1	c2	c3	c4	c5	c6	c7	c8	d1	d2	d3	d4	d5
1-Gynaecology	x	x	x	x				x	x	x	x				x	x	x	x					x	x	x	x	x
2-Pathology of Genital System					x							x							x				x	x	x	x	x
3-Physiology of Reproduction								x	x	x					x	x	x					x	x	x	x	x	x
4-Histology and anatomy of female reproductive system						x							x							x			x	x	x	x	x
5-Applied Parasitology and Microbiology							x							x							x		x	x	x	x	x

6- Programme admission requirement:

1- Obtaining a bachelor degree in veterinary medicine sciences from one of the Egyptian universities or equivalent degree from another recognized scientific institute with any grade

2- The bachelor degree must be obtained at least one year prior to registration

3- The applicant must have regular attendance in his courses according to the schedule of the faculty.

4- Registration will be during September of each year.

7 - Regulations for progression and programme completion.

1- Registration period is one year for diploma and the applicant not exceed a period of registration for two year.
2- The examinations of the diploma are 2 times / year in December & April.
3- The faculty council has the right to deprive the applicant from the exam if his attendance courses are less than 75%.
4- in case of failure, the exams will be hold 2 times / year and reexamination in all courses each time.

8-System of examination for postgraduate studies as follow:

 Time of written exams, 3 hours for each curriculum have 3 hours or more for theoretical / practical hours/ week. If the curriculum less than 3 hours / week, the time of ex. is 2 hours only.

 The final degree of each curriculum which have 3 hours (theoretical & practical) per week is 100 & less than 3 hours 50 degree & divided into 50 % for written ex. and 50 % for practicle and oral ex.

9-Grades of graduation are as follow:

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

The programme specification should have attached to it all course specifications listed in the matrix.

Programme coordinator:
Name Prof. Dr. Saber Mohamed Abd-Allah
Signature..... Date 18/01/2018

Head of the Department Theriogenology
Name: Prof. Dr. Mahmoiud Mohamed Hussien
Signature..... Date: 18/01/2018

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	**D4**-A
Course title :	Gynaecology Course
Program title:	Diploma of Reproduction
Contact hours/ week	4 hours/week (Lecture: 2 - Practical: 2)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

1- Assess the female reproductive potential, eliminate the infertility problems.

2- Introducing the academic background and practical experience about the female reproduction in different animal species particularly farm animals and how to manage a farm from the breeding point of view.

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- Outline Gynaecology.

a-2-Discuss about the management of breeding females and the its economics

a-3- Understanding the relationship between successful breeding programs and the profitability of the dairy farms..

a-4- Knowledge about diagnosis and control of different forms of female infertility.

b-Intellectual skills

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

b-1- Capability for creative thinking for developing of breeding technologies.

b-2- Identification of cases of infertility and how to treat.

b-3- Creative thinking for keeping breeding stock.

b-4- Identification of female genital diseases and suitable control measures.

C- Professional and practical skills

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

c-1- Gynaecological investigation and treatment of infertile cases.

c-2- Synchronization of estrus.

c-3- Control of heat stress.

c-4- Assessment of the reproductive performance of females.

c-5- Hormonal control of the sexual cycle in the female.

c-6- Collection & preservation of diagnostic specimens.

c-7- Laboratory diagnosis of pathological cases of female infertility.

d- General and transferable skills

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

d-1- Management of a dairy cow project

d-2- Use of new technological tools for keeping normal fertility in females.

d-3- Identifying & controlling of forms of infertility.

Course specification of postgraduate

d-4- Capability for written and oral communication with Gyanecology specialists.
d-5- Group working in the field of private business.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. h./week, Pract h./week)	Terminology, ontogenesis of the female genital system	4	4	-
	Functional anatomy of the female genital system	16	-	16
	Reproductive cycle in different animal species	4	4	-
	Estrus Cycle in different animal species	16	-	16
	Heat detection aids	16	4	12
	Control of the reproductive cycle (Synchronization of estrus)	8	8	-
	Congenital forms of bovine infertility	8	8	-
	Functional forms of bovine infertility	8	8	-
	Pathological forms of bovine infertility	8	8	-
	Environmental causes of bovine	4	4	-
	infertility (Nutrition, management and temperature)	4	4	-
	Forms of infertility in Mare	8	8	-
	Infertility in Pet animals	8	8	-
	A scheme for gynaecological investigation	28	-	28
	Reproductive management	4	4	-
	Total	144	72	72

5-Teaching and learning methods

5.1- Lectures (brain storm, discussion) using board, data shows
5.2- Self learning by preparing essays and presentations (computer researches and faculty library)
5.3- Practical (models, samples of Slaughter house material, clinical cases).

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S

Course specification of postgraduate

Final Exam	a1, a2, a3,	b1, b2, b3	c1,c2,c3,c4	d1,d2,d3
Practical Exam	a4	b4	c5,c6,c7	d4, d5
Oral Exam	a1, a2, a3, a4	b1, b2,b3,b4	c1,c2,c3,c4,c5,c6,c7	d1, d2,d3,d4,d5

7.2. Assessment schedules

Method	Week(s)
Practical exams	During 45 th week - 48 th week
Final exams	During 45 th week - 48 th week
Oral Exam	During 45 th week - 48 th week

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25%
Final exams	50%
Oral Exam	25%
total	100%

8- List of references

8.1. Notes and books

Departmental notes on: Theriogenology

8.2. Essential books:

- Reproduction in farm animals, E.S.E.Hafez
- Current therapy in theriogenology, D.A.Morrow.
- Current therapy in large animal theriogenology, R. S.Young quist

8.3. Recommended texts

- Applied animal reproduction, H.J.Bearden
- Fertility and infertility in domestic animals, J.A.Laing..
- Anatomy and physiology of farm animals, R.D.Frandson

8.4. Journals, Websites ……..etc

Journals:

- J. Animal reproduction & Fertility
- J. Fertility & Sterility
- Theriogenology
- J. Andrologia

Websites:

www.sciencedirect.com

www.pubmed.com

Course specification of postgraduate

- Google.Com
- Arabvet.com
- Esarf tripod.com/index.htm

Course Coordinators **Head of Department**

Prof. Dr. Saber Mohamed Abd-Allah **Prof. Dr. Mahmoud Mohamed Hussien**

Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Course Description		**K and U (a)**	**I.S (b)**	**P. P.S. (c)**	**G.T.S (d)**
1	Terminology, ontogenesis of the female genital system	1st w- 2nd w	1,2,3	1,2,3	1,2,3,4	1,2,3,4,5
2	Functional anatomy of the female genital system	3rd w- 4th w	4	4	5,6,7	1,2,3,4,5
3	Reproductive cycle in different animal species	5th w- 7th w	1,2,3	1,2,3	1,2,3	1,2,3,4,5
4	Estrus Cycle in different animal species	8th w- 10th w	1,2,3,4	1,2,3,4	1,2,3,4,5,6,7	1,2,3,4,5
5	Heat detection aids	11th w- 13th	4	4	5.6.7	1,2,3,4,5
6	Control of the reproductive cycle (Synchronization of estrus)	14th w- 15th w	1,2,3	1,2,3	1,2,3,4	1,2,3,4,5
7	Congenital forms of	16th -17th	1,2,3	1,2,3	1,2,3,4	1,2,3,4,5

Course specification

	bovine infertility	w				
8	Functional forms of bovine infertility	18th w-19th w	1,2,3	1,3	1,2,3,4	1,2,3,4,5
9	Pathological forms of bovine infertility	20th w-21st w	1,2,3	1,3	1,2,3,4	1,2,3,4,5
1	Environmental causes of bovine	22nd w-23rd w	1,2,3	1,3	1,2,3,4	1,2,3,4,5
1	infertility (Nutrition, management and temperature)	24th -26th w	1,2,3	1,3	1,2,3,4	1,2,3,4,5
1	Forms of infertility in Mare	27th w-29th w	1,2,3	1,3	1,2,3,4	1,2,3,4,5
1	Infertility in Pet animals	30th w – 31st w	1,2,3	1,3	1,2,3,4	1,2,3,4,5
1	A scheme for gynaecological investigation	32nd -33rd w	4	4	5.6.7	1,2,3,4,5
1	Reproductive management	34th -36th w	4	4	5.6.7	1,2,3,4,5

Beni-Suef University
Faculty of Veterinary Medicine

Course specification for Diploma

1-Basic information

Course Code:	
Course title :	Anatomy and Histology of genital system for diploma of Gynecology
Program title:	Diploma of Gynecology
Contact hours/ week	Lecture: 1 hrs/week Practical: 2 hrs/week
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

Gain first hand experience of scientific research

* Provide graduates the opportunity to develop research skills

* Provide graduate with skills in interpretation of the published literature to prepare them to assimilate and incorporate new developments into research and clinical activities

* Provide graduate with the knowledge of light and electron structure of ,male and female genital systems in relation to its function.

* Provide graduate with the knowledge the special structure of the male sperm and female ovumraduate with the knowledge of microscopic structure of different organs of bird

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1-Describe advanced research techniques used in the field of microscopic structure of male and female genital systems.

a.2- Describe the light and electron microscopic structures of the different organs of genital system.

a.3- Critically apply their knowledge of genital system research methods by evaluating the utility of those techniques to specific research questions.

a.4-Mention the most anatomical features of male and female genital system

b-Intellectual skills

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

b.1differentiate between anatomical structure of different organs of genital system

b.2- interpret the different microscopic structure of genital system in relation to their function

b.3Describe the micro and macroscopic structure of different organs of genital system

Course specification for Diploma

b.4- identify the secretory cells and their characters of the genital system

C- Professional and practical skills

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

c.1. Preparing of the sections from the collected samples

c.2. Staining the sections by di erent histological stains

c.3. examine both micro and macroscopic organs of genital system

c.4. using the new technology in practical portion

d- General and transferable skills

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

d.1.Demonstrate information retrieval and library skills.

d.2. Demonstrate interpersonal skills and team working ability by the successful completion of collaborative learn assignment and the honors researches projects.

d.3. present research finding in oral and written from using arrange of appropriate soft ware (e.g., power point , word , excel and data base).

d.4. use all types of communications skills.

4-Topics and contents

Week	Topic	Total (hr)	Lectures (hr)	Practical (hr)
- 1th w- 18th w	**Anatomy and histology of male genital system** Structure of the testis Structure of accessory genital gland Structure of male duct system	27	9	18
- 19th w- 36th w	**anatomy and histology of female genital system** Structure of the ovary Structure of uterus	27	9	18

5-Teaching and learning methods

Course specification for Diploma

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

6-Teaching and learning methodsfor the students with disabilities

Office hours and special meeting

7-Student assessment

7.1. Assessments methods:

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

7.2. Assessment schedules/semester:

Method	Week(s)
Written exam	**53th w-56th w**
Practical exam	**52th w**
Oral exam	**53th w-56th w**
student activity	**along the year**

7.3. Weight of assessments/semester

Assessment	Weight of assessment
Writing exam	**50%**
Practical exam	**25%**
Oral exam	**25%**
student activity	----------
total	100%

Course specification for Diploma

8- List of references

8.1. Notes and books

Departmental notes on:

-Text book of veterinary histology part I:-Prof.Dr.Khaled Mazher, Dr.TaghreedNabil,Dr. Usama Kamal and Dr.Abdel-RazekHashem. 2015/ I.S.B.N. 27221/2015

-Text book of veterinary histology part II:-Prof.Dr.KhaledMazher, Dr.TaghreedNabil,Dr. Usama Kamal and Dr.Abdel-RazekHashem. 2015/ I.S.B.N. 27219/2015

8.2. Essential books:

-Weather's Functional Histology (main reference book), a text and colour atlas. Fourth edition, by B.Young and J.W.Heath.

Cormack, D. H. (1987): Ham's Histology 9th Ed. J. B. Lippincott Company, Philadelphia, London, Mexico City, New York, St. Louis, Sao Paulo, Sydney

8.3. Recommended texts

- **Headlines of Veterinary Histology**. Hany E. S. Marei. 5th ed. 2006.V II. Department of

8.4. Journals, Websites ……..etc

Journals:

- American Journal of anatomy
-AnatomiaHistologiaEmbryologia
-Anatomical record
-Egyptian journal of Histology

Websites:

WWW.Science direct
WWW. Pubmed.com
WWW.Scholar google.com
WWW.wellyinterscience

Course Coordinators
Dr. Taghreed Mohamed Nabil

Head of Department
Prof.DrlKhaled M.Mazher

Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Histology of lab animal		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	**anatomy and histology of male genital system** Structure of the testis Structure of accessory genital gland Structure of male duct system Structure of animal sperm	38	1,2,3,4	1,2,3,4	1,2,3	1,2,3,4,
2	**anatomy and histology of female genital system** Structure of the ovary Structure of uterus Stages offolliculogenesis	38	1,2,3,4	1,3,4	1,2,3	1,2,3,4,
	Student activities					1,2,3,4,5

University: Beni-Suef University, Egypt.

Faculty: Faculty of Veterinary Medicine.

Departments: Pathology

Course specification

A- Administrative Information:

Course Code:	
Course title :	Pathology.
Academic year:	Postgraduate students.
Program title:	Diploma of Vet. Med. Sciences (reproduction).
Degree:	Diploma.
Contact hours/ week	4 hours per week (2hr theoretical and 2hr practical).
Course coordinator:	Dr. El-Shimaa nabil.
External evaluator(s)	Prof. Dr. Sary Khalil
Date of course approval:	

B-Professional information

1- Overall aims of course:

This course aims to:

Acquire knowledge on different aspects and mechanism of disease development in gonads and reproductive tract of female and male genital systems. Identify the pathological lesions and Pathogenesis and tissue reaction to infectious agents. aware with tissue specimens preparations and full description to macroscopic and microscopic pathological changes.

2- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

At the end of this course, the student must able to:

By the end of this course the graduate should be able to:-

a.1. Recall Knowledge about the molecular and cellular response of the living body when exposed to toxic agent

a.2. Outline the relationship between causes and tissue/organ changes.

a3. Describe the macroscopic & microscopic tissue changes of the bacterial and viral diseases affecting the male & female genital system.

a.4. Recognize Knowledge about typing and classification of different tissue/organ changes.

a5. Illustrate the pathogenesis of the microbial diseases affecting farm animals.

Intellectual skills:

By the end of studying this course, the graduate should be able to:-

b.1. Discriminate between tissue/organ appearance in health and diseased animal.

b2. Di erentiate between the di erent pathological alterations in di erent 1ry sex and secondary sex organs in male and female and male genital tract.

b.3. Score the macroscopic and microscopic pathological lesions

b.4. Interpret correctly the pathological data obtained the macroscopic and microscopic examination to reach final diagnosis.

b.5. Integrate the pathological alterations with infectious agents.

c-Professional and practical skills

By the end of studying this course, the graduate should be able to:-

c.1. Select the necessary techniques for sample reception & processing according to the nature of specimen received.

c.2. Examine and identify the macroscopic pathological criteria of the genital system.

2.3.3. Examine and identify the microscopic criteria of the pathological alterations

c.4. Perform diagnosis and full description for the pathological picture based on the gross and histopathological examination

c5. Write a report commenting on a pathological specimens

d- General and transferable skills

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

d.1. Demonstrate the ability of problem definition

d.2. Utilize the computer, microscope and internet

d.3. Use data analysis and communication skills

d.4. Utilize various computer based instruction tools and E-learning of Pathology and utilize a variety of computer-based self assessment tools.

d.5 Use the sources of biomedical information available to remain current with advances in knowledge and practice

3- Topics and contents

Course	Topic	Total no. of hours	Lect.	Pract.
Postgraduate students Pathology of genital systems 4 hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	**1. Introduction in pathology and histopathological techniques**	**8**	**4**	**4**
	2- General bases of pathological alterations (dist. In cell metabolism, Cell death, dist. In circulation, inflammation and healing and general tumors)	**32**	**16**	**16**
	3. physiopathology of genital systems	**20**	**10**	**10**
	4. Pathology female genital system.	**20**	**10**	**10**
	5. Pathology of male genital system	**20**	**10**	**10**
	6.Pathology of diseases causing abortion	**20**	**10**	**10**
	7- pathology of udder	**16**	**8**	**8**
	8-.Activities	**8**	**4**	**4**
	Total	**144**	**72**	**72**

4-Teaching and learning methods

5.1. Lectures (brain storming, discussion) in which one or more of the following facilities are used:

5.1.1. White board and data-show presentations.

5.1.2. Educational preserved specimens.

5.1.3. Illustrations, anatomical charts, CD's, PowerPoint slides and recorded anatomy

videos.

5.2. Laboratory sessions in which one or more of the following facilities are used:

5.2.1. Tutor presentation followed by students' small group sessions.

5.2.2. Educational models.

5.2.3. Demonstrating formalin preserved tissues.

5.3. Independent (laboratory and home assignments supervised by tutor)

5.3.1. Writing reports and assignments (computer researches and faculty library attendance).

5.3.2. Preparation of colored posters and slide presentation.

5.3.3. Preparation of preserving specimens.

5.3.4. Group discussion.

5-Student assessment

5.1. 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	B1, b2, b3,b4, b5,	c1, c2, c3, c4,5	d1
Practical Exam	a1, a2, a3	b1, b2, b3, b4, b6	c1, c2, c3, c4	d1, d2, d3 ,d4
Oral Exam	a1-a3	b1-b6	c1, c2, c4, c5, c6	d1,d2, d3

5.2. Assessment schedules/semester:

Method	Week(s)
Practical exams	Managed by department administration
Final exams	Managed by faculty administration
Oral Exams	Managed by department administration

5.3. Weight of assessments:

Assessment	Weight of assessment
Practical and oral exams	50%
Final exams	50%
Total	100%

6- List of references

8.1. <u>Notes and books:</u>

None

8.2. <u>Essential books:</u>

- **Jubb,K.V., P.C.Kennedy and N.Palmer (1993) Pathology of Domestic Animal, 6th ed. San Diego, New York**
- **Jones, T.C., Hunt, R.D. and King, N.W (2008) Veterinary pathology , 8th ed. Williams and wilkins, Waverly company (2008)**
- **Gallin, J. and Synder , R (2010), In ammation 3rd. ed. Lippincott Williams,Wilkins. Philadelphio**
- **Ramz-I S. and Kumar, V. and Collin, T. (1999) Pathological Basis of Disease , 6th ed .**

These book is available in the library of faculty of Veterinary Medicine, Beni-Suef Univ.

8.3. Recommended textbooks:

8.3.1. R.S. Chauhan (2010) Text Book of veterinary pathology. *1st. ed. IBDC publishers *This book is available online.*

8.3.1 Jaap Van Dijk, Erik Gruys, and Johan Mouwen, COLOR ATLAS OF VETERINARY PATHOLOGY (2006) 2nd ed., Saunders Ltd

8.3.2. Richert, G and Epstein , M. (international review of experimental pathology)

8.4. Journals, Websites ……..etc

Journals

- **Egyptian Journal of Comparative Pathology and Clinical Pathology**
- **Pathologia Veterinaria**
- **American Journal of Pathology**
- **Journal of Pathology and Bacteriology**
- **Archive of Pathology**
- **Veterinary Record**
- **Journal of Comparative Pathology**
- **Canadian Journal of comparative Medicine**
- **American Journal of veterinary research**
- **Research on veterinary Science**

-Beni-Suef Veterinary Medical journal

http://www.bsuv.bsu.edu.eg/vetmed.aspx#

Websites

Google search www.google.com

Sciencedirect http://www.sciencedirect.com.

Pubmed http://www.Pubmed.

Colorado State university online http://www.online.colostate.edu/courses/VS/VS333.dot

The university of adelaide https://www.adelaide.edu.au/course-outlines/104377/1/sem-1/

VET Veterinary Educational Tools http://www.cvmbs.colostate.edu/vetneuro/

Education platform http://ivsascove.wix.com/eduplatform#!anatomy-hist-embr/ctsm

http/cms.nelc.edu.eg

www.asvp.asn.au.com

www.geneng news.com

www.altcancer.com

Course Coordinator

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Lecturer of pathology

Faculty of Veterinary Medicine,

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Head of the department

Prof. Dr. Khalid Ali El-Nesr

Professor and Head of pathology department,

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Course specification Matrix

	Topic	Week	Intended learning outcomes of course (ILOs)			
			K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Postgraduate students Pathology genital system 2 hours / weak (Lec. 2hr/wk - Pract. 1hr/wk)	1. Introduction in pathology and histopathological techniques	1-2	1,3	1,2,3	1, 2,3,5	1-5
	2- General bases of pathological alterations (dist. In cell metabolism, Cell death, dist. In circulation, inflammation and healing and general tumors)	3-10	1,2,3,4,5	1,2,3,4,5	1, 2,3,4	
	3. physiopathology of genital systems	11-15	1,2,3,4,5	1,2,3,4,5	1, 2,3,4	
	4. Pathology female genital system.	16-20	1,2,3,4,5	1,2,3,4,5	1, 2,3,4,5	
	5. Pathology of male genital system	21-25	1,2,3,4	1,2,3,4,5	1, 2,3,4	
	6.Pathology of diseases causing abortion	26-30	1,2,3,5	1,2,3,4,5	1, 2,3,4,5	
	7-pathology of udder	31-34				
	8-.Activities	35-36	1,2,3	1,2,3,4,5	1, 2,3,4,5	

Beni Suef University
Faculty of Veterinary Medicine
Department of physiology

Course specification

1-Basic information	
Course title :	**Physiology of reproduction**
Academic year:	**2017-2018**
Programme title:	**Diploma of reproduction**
Contact hours/week/semester:	Lecture:2 Tutorial: 0 Practical: 1 Others:0 Total: 3

2-Professional information

Overall aims of course

a-To ensure that students reserve a scientific base in veterinary reproduction**.**

b-To provide students with the ability to advance biotechnology techniques in animal production.

- Intended learning outcomes of course (ILOs)

a-Knowledge and understanding

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

a1-Summarize the anatomical, physiological and hormonal aspects of reproductive system..

a2-Discuss the physiology of sexual intercourse and its effects on the reproductive system of male and female.

a3-Describe the process of fertilization.

a4-Explain the relationship between different hormones & development and specify the various stages of development & its regulation.

a5-Understand the prenatal periods & describe the major events associated with each.

a6-Relate the stages of parturition to the hormonal control.

b-Intellectual skills

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

b1-Deal with ethical and professional issues pertaining to animal research.
b2-Compare between prenatal periods and events associated with each.
b3-Design an interplay between the maternal organ system and the developing fetus..

c-Professional and practical skills

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

c1-Collect vaginal smear and examine it.
c2-Examine ovaries and detect the stages of follicular and luteal phases.
c3-Undertake advanced laboratory techniques used in animal production as IVM and IVF.

d-General and transferable skills

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

d1- Communicate effectively with public, colleagues and appropriate authority.
d2-Work effectively as a member of a team in delivering the services to community.
d3-Utilize communicating skills and have access to the internet and retrieve the information.
d4-Be committed to ongoing learning and self evaluation.
.**d5-**Respect his profession and encourage cooperation with colleagues.
d6-Be kind with animals during experimentation and sacrification**.**
d7-Apply the veterinary code of practice including ethics**.**

3-Topics and contents

Topics	No. of hours	Lectures	Practical
Structure and function of reproductive system	36	24	12
Hormonal changes during reproductive cycle			
Sexual intercourse	30	20	10
Fertilization	30	20	10
Development & pregnancy	30	20	10

Parturition	30	20	10
Total	**156**	**52**	**104**

4-Teaching and learning methods

4.1 Lectures.
4.2 Practical courses.
4.3 Computer search.
4.4 Seminars.

5-Teaching and learning methods for students with special needs.

- Students with special needs are strongly encouraged to talk to the instructors as soon as possible to gain maximum access to course information. All discussions should remain confidential.
- University policy is to provide, on a flexible and individualized basis, reasonable accommodations to students who have documented disability conditions (e.g., physical, learning, psychiatric, vision, hearing, or systemic) that may affect their ability to participate in course activities or to meet course requirements.

Students with disabilities are encouraged to contact Disability Services and their instructors to discuss their individual needs for accommodations.

6-Student assessment

6.1.Assessments methods

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U (a)	I.S (b)	P&P.S (c)	G.S (d)
Written exam	al -a6	b, b2		
Oral exam		b1 -b3		
Practical exam			c1-c3	

6.2-Assessment schedules/semester

Assessments methods	Time of Assessments
Assessment1 Written:	**Last week in January or April**

Assessment 2 Oral:	**Last week in January or April**
Assessment 3 Practical:	**Last week in January or April**

6.3-Weight of assessments

Assessment	%	Allocated Mark Total
Final term examination	50	
Oral examination	20	
Practical examination	30	
Total		**100%**

7- List of references

7.1. Departmental Notes

Course notes: Student handbook of physiology part II prepared by the department staff members.

7.2Essential books

* Ruminant Physiology. F.B. Cornje 2000.
* Animal physiology. ITTA Sambasiviah, A.P. Kamalakara RAO and S. Augustine Chellappa 1987.
* Physiology of Domestic Animals. William O. Reece 1991.
* Principles of Anatomy and Physiology. 4th edition. Gerard J. Tortora – Nicholas P. Anagnostakos 1975.

7.3- Recommended books

* * * Experiments in Physiology 6th Edition. Gerard P. Tharp 1993.
* Textbook of Medical Physiology. Guyton & Hall 9th Edition. 1996. W.B. Saunders Co. (Harcourt Brace I.E.) Philadelphia, USA.
* Physiology 3rd edition. John Buuock, Joseph Boyle III and Michael B. Wang, 1995. National Medical Series for Independent Studies. Middle East Edition. Mass Publishing CO. 9Al Tahrir St., Dokki, Giza, Egypt.

7.4. Journals , Websites ……..etc

Journals:

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* Egyptian J. of Basic and Applied Physiology. Cairo, Egypt.
* Neni Suef Vet. Med. J., Neni Suef, Egypt.

Websites:

1. Pubmedmidline.
2. U-Tube
3. www.Bnsvet.com

8- Other Resources / Facilities required for teaching and learning to achieve the above ILOs
(for example, Field trips).....

9- We certify that all of the information required to deliver this course is contained in the above specification and will be implemented

Course coordinator

Dr / Nermeen Atef

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Date:

Head of department:

Prof. Dr / Ahmed Hashem El-Anwar
Date:

Beni Suef University
Faculty of Veterinary Medicine
Department of physiology

Matrix alignment of course topics and `ILOs

Topic	No. of hours /weeks		No. of weeks	Total hours	Hours for lecture	Hours for practical	K.U(a)	I.S(b)	P.P.S (c)	G.T.S (d)	Lect.	Pract.	Computer search	seminars
	Lect.	**Pract.**												√
Structure and function of reproductive system	**2**	**1**	**12**	**36**	**24**	**12**	**a1, a2**	**b1**	**c1,c2**	**d1-d7**	√	√		√
Hormonal changes during reproductive cycle	**2**	**1**	**4**	**12**	**8**	**4**	**a1, a4, a6**	**b1**	**c2,c3**		√	√	√	
Sexual intercourse	**2**	**1**	**2**	**6**	**4**	**2**	**a2**	**b1**	**c3**	**d1-d7**	√	√		√
Fertilization	**2**	**1**	**9**	**27**	**18**	**9**	**a3**		**c3**	**d1-d7**	√	√	√	√
Development & pregnancy	**2**	**1**	**12**	**36**	**24**	**12**	**a4,a5**	**b2,b3**	**c3**	**d1-d7**	√	√	√	√
Parturition	**2**	**1**	**8**	**24**	**16**	**8**	**a6**	**b3**	**C2**	**d1-d7**	√	√	√	√
Final exam.			**1**											
Total			**48**	**141**	**94**	**47**								

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	
Course title :	Parasites and microbiology
Program title:	Diploma of Reproduction
Contact hours/week	1 hours lectures and 2 hours practical (3 hs)/ practical
Approval Date	

2-Professional information

Overall aims of course:
This course aims to: The Diploma program support the postgraduate student the ability to:
1-Define types, nature, and importance of parasites, bacteria and viruses affecting on reproduction of farm animals.
2-Distinguish and select the best way to control and prevent parasites, bacteria and viruses affecting on reproduction of farm animals.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

By the end of this course the student should be able to:
a.1. Recognize the different parasitic categories as an invertebrate animals that cause disease.
a.2. Know the effect of parasites in the different animal hosts; namely mammals.
a.3. Conclude the nature ,structure and classification and basis of laboratory diagnosis of different bacterial and viral agents affecting reproduction of farm animals.
a.4. Recognize the nutritional and environmental requirements for growth and reproduction of bacteria.
a.5. Recognize the factors associated with the virulence of the microorganisms, its exaltation and attenuation.

b-Intellectual skills

By the end of this course the student should be able to:
b.1- Assess strategies of controlling and prevention of parasites, establishment in the animal host or in the surrounding environment.
b.2- Make a treatment decision based on parasitology understanding.
B3- Suggest the solutions of the problems concerning bacterial and viral diseases affecting the genital system.
b.4-Differntiate between bacteria and viruses affecting reproduction.

C- Professional and practical skills

By the end of this course the student should be able to:
c.1. Arrange and examine the fresh and preserved samples namely; Semen, perpetual wash, blood, faeces , skin, biopsy specimens,….
c.2 Collect specimen from genital organs for laboratory diagnosis of parasitic ,bacteriological and virological examination.
c.3. Determine the sensitivities of infecting organism to antimicrobial drugs.

Course specification of postgraduate

c.4- Identify the causative microorganism depending on morphological, cultural and biochemical characters as well as serology.

d- General and transferable skills

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

d1. Work effectively in a team.
d2. Use efficiently source of knowledge.
d3. Able to transfer the experience to others.
d4. Characterize and differentiate various parasitic affections.

4-Topics and contents

week	Topic	No. of hours	Practical	Lectures
3hours/week (Lec. 1hr/wk, Pr 2hr/wk)	Introduction to Parasitology	3	2	1
	Trematoda, morphobiology, physiology, classification.	6	4	2
	Fasciolidae, Paramphistomidae	6	4	2
	Cestoda, morphobiology, classification, metacestodes.	6	4	2
	Nematodes, morphology, diagnosis, control.	6	4	2
	Arthropoda, control.	6	4	2
	Protozoa causing abortion, diagnosis and control.	3	2	1
	General bacteriology (morphology, structure, classification and nutrional requirements)	6	4	2
	Systematic bacteriology			
	Family Enterobacteriacae (members affecting genital system)	6	4	2
	Genus Brucella	6	4	2
	Genus Mycoplasma	6	4	2
	Genus Leptospira	6	4	2
	Genus Listeria	6	4	2
	Systemic viral disease affecting reproduction and genital tract (Herpes viruses –Flaviviruses – poxviruses)	12	--	12
	Diagnostic virology	24	24	-

Course specification of postgraduate

5-Teaching and learning methods

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

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

5.3- Laboratory work using microscopic mount specimens, fresh or permanent, museum models and preserved helminth specimens, drawing and simulation of teaching helminth specimens, their life cycles, etc.

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**
Writing Exam	a1, a2, a3, a4,a5	b1, b2, b3.b4	c1, c2, c3, c4	d2, d4
Practical Exam	a1, a2, a3, a4,a5	b1, b2, b3,b4	c1, c2, c3, c4	d2, d4
Oral Exam	a1, a2, a3, a4,a5	b1, b2, b3,b4	c1	d2, d4

6.2. Assessment schedules

Method	Week(s)
Practical exams	45-48
Final exams	45-48
Oral Exam	45-48

6.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25%
Final exams	50%
Oral Exam	25%
Total	100%

7- List of references

7.1. Notes and books:

a. Department lecture book.

b. Illustrated practical notes of the Department .

7.2. Essential books:

a- Helminth , protozoa and arthropods of domesticated animals: Soulsby, E.J.L., 7th edition. Bailliere Tindall,London, (1982).

b- Veterinary Helminthology: Reinecke,R.K. Butterworth, Pretoria, South Africa, (1983).

c- Veterinary Helminthology: Dunn, SA.M.., 2nd edition. William Heinmann medical books, Ltd. London, UK, (1978).

Course specification of postgraduate

d- Diagnostic Veterinary Parasitology: Hendrix, C.M. 2nd edition. Mosby, (1998).
e- Bergey's Manual of Systematic Bacteriology, 4th Edition Noel R. Krieg, John G. Holt, and Murray R. G. E. 1984.
f- Prescott, Harley and Klein's Microbiology. J. M. Willey, L. M. Sherwood, and C. J. Woolverton – 17th Edition, International Edition, 2008, Mc Graw Hill

7.3. Recommended texts:

- Encyclopedic reference of Parasitology: Mellhorn, H. 2nd edition. Springer, Berlin, (2001).
- Parasitology for veterinarians: Georgi, J.R. and Georgi, M.E., 5th editions. W.B. Saunders, (1990).
Mackie and McCartney Medical Microbiology, 14th Edition 1992 (J. P. Duguid, B.P. Marmion and R. H. A. Swain). (The bock present in the faculty library)
Topley & Wilson microbiology and microbial infections, 9 th edition

7.4. Journals, Websites ……..etc

Journals:

Parasitology Research.
Egyptian Veterinary Medical Society of Parasitology Journal.
BMC Microbiology
Brazilian Journal of Microbiology
Microbiology and Molecular Biology Reviews
Journal of Microbiology and Biotechnology
African Journal of Microbiology Research
International Journal of Microbiology

Websites:

http://www.journals.elsevier.com/veterinary-parasitology/
http://www.sciencedirect.com.
http://www.Pubmed.
http://www.AltaVista.
http://www.cellsalive.com.

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Course specification of postgraduate

Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
			K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction to Parasitology	1	a1, a2	b1	-	D2, d3
2	Trematoda, morphobiology, physiology, classification.	2-3	a1, a2,	b1, b2,	c1,c2,	D1, d3, d4
3	Fasciolidae, Paramphistomidae	4-5	a1, a2,	b1, b2,	c1,c2,c3,	D1, d3, d4
4	Cestoda, morphobiology, classification, metacestodes.	6-7	a1, a2,	b1, b2,	c1,c2,	D1, d3, d4
5	Nematodes, morphology, diagnosis, control.	8-9	a1, a2	b1, b2,	c1,c2,	D1, d3, d4
6	Arthropoda, control.	10-11	a1, a2.	b1, b2	c1,c2,	D1, d3, d4
7	Protozoa causing abortion, diagnosis and control.	12	a1, a2	b1, b2	c1,c2,	D1, d3, d4
8	General bacteriology (morphology, structure, classification and nutrional requirements)	13-14	a3,a4,a5	b3,b4	c2,c3,c4	
	Systematic bacteriology					
9	Family Enterobacteriacae (members affecting genital system)	15-16	a3,a4,a5	b3,b4	c2,c3,c4	d1,d2,d3,d4
10	Genus Brucella	17-18	a3,a4,a5	b3,b4	c2,c3,c4	d1,d2,d3,d4
11	Genus Mycoplasma	19-20	a3,a4,a5	b3,b4	c2,c3,c4	d1,d2,d3,d4
12	Genus Leptospira	21-22	a3,a4,a5	b3,b4	c2,c3,c4	d1,d2,d3,d4
13	Genus Listeria	23-24	a3,a4,a5	b3,b4	c2,c3,c4	d1,d2,d3,d4
	Virology					
14	Systemic virology	25-36	a3,a4,a5	b3,b4	c2,c3,c4	d1,d2,d3,d4
15	Diagnostic virology	25-36	a3,a4,a5	b3,b4	c2,c3,c4	d1,d2,d3,d4