Kafrelsheikh University
Faculty of Veterinary Medicine

COURSE SPECIFICATION

(2016 / 2017)

1. Basic Information

CourseTitle: Obstetrics :Artificial Insimenation&Embryo Transfer

Academic year/level : Fifth year of B. V. Sc. Program (Faculty bylaw,2007). .

Date of specification approval: Faculty Council on …. / 8 /2016.

Total teaching hours : 4 h/wk. (120 hr. / academic year)

- Lecture: 2h/wk. (Total= 60 hr)

- Practical: 2 h/wk. (Total= 60 hr)

2- Overall aims of course:

To provide students with basic knowledge and skills concerning; normal and abnormal pregnancy, parturition and puerperium. Also to provide the students with basic knowledge and techniques concerning semen collection, composition, evaluation and processing in addition to embryo transfer and associated biotechnology.

3- Intended learning outcomes of course (ILOS):

3-A: Knowledge and understanding:

By the end of the course, students should be able to:

A1- Memorize periods and stages of normal pregnancy, parturition and puerperium as well as in different species of animals.

A2- Describe the methods of postpartum care of both mother & off-spring.

A3- Recognize the obstetrical problems occurring during pregnancy and puerperial periods and their treatments in different species of animals.

A4- Identify causes, methods of management and prognosis of cases of dystocia in different animal species.

A5- Recognize the advantages of both AI and E.T.

A6- state semen composition and metabolism.

A7- Describes the methods of semen collection, evaluation dilution and preservation

A8- Recognize the insemination techniques.

A9- Identify the embryo- -transfer protocols and methods of embryos evaluation and preservation.

A10- Describe In-vitro- fertilization and associated biotechnology.

3-B: Intellectual skills:

After successful completion of the course the students should be able to:

B.1- State the prophylactic measures to minimize some obstetrical problems such as fetal anomalies feto-maternal disproportion and retention of placenta,.

B.2- State good obstetrical approach

B.3- Interpret the prognosis of various obstetrical problems.

B.4- Maximize the reproductive performance of a herd through application of AI.

B.5- Design a protocol for an embryo transfer and evaluate the results.

B.6- Utilize E.T. and IVF and associated biotechnology in solving the infertility problems.

3-C: Professional and practical skills:

After successful completion of the course the students should be able to:

C.1- Apply and induce abortion and parturition in small and farm animals.

C.2- Follow up pregnant females till parturition and conduct pregnancy diagnosis.

C.3- use diagnostic aids such as ultrasonography for diagnosis of pregnancy problems.

C.4- Diagnose and handle a case of dystocia and perform obstetrical operations such as fetotomy and casearean section.

C.5- Organize the regime for the follow up of farm and small animals during puerperium to ensure a good future fertility.

C. 6- Solve puerperial problems.

C.7- Coduct efficient postpartum care of the mother and newborn to save the dam and offspring from danger

C.8- Collect, evaluate, dilute and preserve semen.

C.9- Breed females and achieve proper conception rate.

C.10- Apply an efficient protocol for embryo transfer.

C.11- perform an IVF and associated techniques.

3-D: General and transferable skills:

After successful completion of the coutse, the students should be able to:

D.l- Perform group working, good management and problem solving ability.

D.2- Conduct good communications.

D.3- Use new technology.

D.4- Develop the ethical behaviors between students and staff members as well as among the students themselves.

4. COURSE CONTENTS:

4.A:- First semester(Obstetrics A) topics:

TOPIC	No.of hours (weeks)		Total hours (Semester)	Hours for lecture	Hours for practical
	Lect.	Pract.			
Normal pregnancy	2	2	10	4	6
Abnormal pregnancy	2	2	14	8	6
Normal parturition and postpartum care	2	2	10	4	6
Dystocia	2	2	16	6	10
Normal & abnormal Puerperium	2	2	10	8	2
Total			60	30	30

4.B:- Second semester topics (Obstetrics B):-

TOPIC	No.of hours (weeks)		Total hours (Semester)	Hours for lecture	Hours for practical
	Lect.	Pract.			
An introduction to AI	2	-	2	2	-
Semen collection & evaluation	-	2	20	-	20
Semen composition & sperm metabolism	2	2	8	6	2
Semen dilution & preservation	2	2	10	8	2
Insemination techniques	2	2	4	2	2

TOPIC	No.of hours (weeks)		Total hours (Semester)	Hours for lecture	Hours for practical
	Lect.	Pract.			
Embryo transfer protocols	**2**	**2**	**6**	**4**	**2**
Embryos preservation	**2**	**2**	**6**	**4**	**2**
IVF and associated biotechnologies	**2**	**-**	**4**	**4**	**-**
Total			**60**	**30**	**30**

5- TEACHING & LEARNING METHODS:

***Lectures**

- using data show and white board

***Practical and small group sessions:**

- clinical cases in faculty clinic.
- Practical demonstrations on slaughter material(dead feti) through palpation in the phantoms.
- Audiovisual

*** Self learning**

- **Visits to faculty library to prepare:**
  - Internet researches.
  - Eessays and presentations.

6. METHODS FOR STUDENTS with limited capabilities:-

- Activation of office hours.
- Discussion with them during practical session.

7. STUDENT ASSESSMENT:-

Method of assessment	Written Examination	Oral Examination	Pract. Examination	Activities
Timing	**At the end of each semester**	**At the end of each semester**	**at 13th week of each semester**	**at 5th week of each semester**
grads	**50**	**20**	**20**	**10**

8- List of references:

8.1. Course notes: (edited by the staff members)

8.1.1. Notes on Veterinary obstetrics(Theoretical part)

8.1.2. Guide for Veterinary obstetrician (Practical part).

8.2. Recommended books

- Veterinary Reproduction and Obstetrics, 7th Ed. by Arthur G.H., et al. (1996).
- Veterinary Obstetrics and Genital diseases, 3rd Ed. by Robert, G.R. (1986).
- Current Therapy in Theriogenology, 1st Ed. by Morrow D.A. (1986).
- Current Therapy in Large animal Theriogenology, 2nd ed., by Youngquist R.S. (2007).

8.3. Periodicals, Web sites,….. etc

- J. of Animal Reproduction Science.
- J. of Theriogenology.
- Reproduction in Domestic Animals.
- Google. Com.

Course content Ilos matrix

TOPIC	K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
1st Semister				
Normal pregnancy	a1	b1to b3	c2	d1 to d4
Abnormal pregnancy	a3	b1to b3	c1-c3	d1 to d4
Normal parturition and postpartum care	A1-a2	b1 to b3	c1	d1 to d4
Dystocia	a3& a4	b1 to b3	c4	d1 to d4
Normal & abnormal Puerperium	a1 & a3	b1to b3	c5 to c6	d1 to d4
2nd Semister				
Introduction to AI	a5	b4	-	d1 to d4
Semen collection & evaluation	a7	b4 to b6	c8-c9	d1 to d4
Semen composition & sperm metabolism	a6	b4 to b6	c8-c9	d1 to d4
Semen dilution & preservation	a7	b4 to b6	c8-c9	d1 to d4
Insemination techniques	a8	b4 to b6	c8-c9	d1 to d4
Embryo transfer protocols	a9	b4 to b6	c10	d1 to d4

TOPIC	K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Embryo preservation	a9	b4 to b6	c10-	d1 to d4
IVF and associated biotechnologies	a10	b4 to b6	c11	d1 to d4

Assessment of the ILOs Matrix:

Methods	I.L.O.S Evaluation				Marks allocated
	Knowledge	Intellectual	Practical	general	
Written examination	a1, a2, a3, a4, a5, a6, a7, a8, a9 & a10	b1 to b6		d1 to d4	50
Oral examination	a1, a2, a3, a4, a5, a6, a7, a8, a9 & a10	b1 to b6		d1 to d4	20
Practical examination		b1 to b6	c1 to c11	d1 to d4	20
Activities	a2, a3, a6, a7	b1 to b6		d1 to d4	10

Course Coordinator — **Prof. Dr. Ismail El-kon**

Head of Department — **Prof. Dr. Adel abd EL-Fattah Ramoun**