

Benha University
Faculty of Veterinary Medicine
Department of Theriogenology



Faculty of Veterinary Medicine-Benha University
Department of Theriogenology
Course Specification for PhD Degree
(2010- 2011)

Course Title: Pathway of Pregnancy

قسم التوليد والتناسل والتلقيح الاصطناعي
كلية الطب البيطري-جامعة بنها

Benha University
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Course specifications

Awarding Body:	Benha University
Teaching Body:	Faculty of Veterinary Medicine
Department responsible:	Theriogenology
Program on which the course is given:	PhD degree
Academic year / Level :	Post-graduate
Date of specification approval:	Ministerial Decree No 921, on 15/9/1987
Date of reviewing by department council:	28 /11 / 2010

A- Basic Information

Title	Pathway of pregnancy		Code:	PVD4
Lecture:	2 hours	Practice:	2 hours	Total: 4 hours

B- Professional information:

1- Overall aims of course:

The overall aims of this course are preparation of the graduates to be able to:

- Recognize the recent concepts regarding the endocrinology of pregnancy and mechanisms of pregnancy establishment in farm animals.
- Manage problems affect pregnant, parturient, and postpartum animals.
- Conduct research to detect the mechanism and pathways of normal pregnancy.
- Achieve capability in modern laboratory technology to develop practical research project.
- Detect and solve reproductive problems based on scientific and research evidence accompanied with efficient utilization

and improving the available resources for achieving the highest benefit

- Data statistical analysis, results interpretation and dissertation preparation.

2- Intended Learning Outcomes of Course (ILOs)

a- Knowledge and understanding:

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

- a.1. Describe the more advanced concepts about physiology of pregnancy, parturition and puerperium.
- a.2. Recognize the problems affect pregnant, parturient, and postpartum animals.
- a.3. Understand the mechanisms controlling the pregnancy and the integrated role of ovarian and placental structures in maintain of gestation.
- a.4. Illustrate the anatomical and morphological changes of the ovary and uterus during pregnancy.
- a.5. Realize advanced concepts about optimum method for handling problems affect pregnant, parturient, and postpartum animals.
- a.6. Recognize advanced concepts and pathways of normal puerperal rhythm
- a.7. Up to date research points in the field of animal obstetrics.
- a.8. Apply their knowledge and understanding of reproductive efficiency to the critical analysis and discussion of the scientific literature.
- a.9. To recognize the different procedures and disciplines those maintain pregnancy and lower post-parturient uterine infections.

b- Intellectual Skills:

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

- b.1. Identify, conceptualize and delineate obstetrics problems.

- b.2. Evaluate their own research data and develop new approach to solve pregnancy, parturition and postpartum reproductive problems.
- b.3. Evaluate the risk of pregnancy disturbances and its possible consequences
- b.4. Develop creative approaches for solving the technical problems or issues associated with the sustained research projects.
- b.5. Identify, summarize and evaluate previous researches adopted in a specific research area (s).
- b.6. Understand areas where further researches necessary and be aware of any which would be beyond current ethical codes.
- b.7. Design a plan for obstetrics problems.

c- Professional and Practical Skills:

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

- c.1. Handle those recent techniques and tools adopted for deep understanding the pathways of pregnancy and diagnose causes of the reproductive failure in farm animals.
- c.2. Effectively handle pregnant, parturient and postpartum animals.
- c.3. Apply the principles of good experimental design and analysis to their own research project.
- c.4. Select and perform relevant programs of statistical analysis on data obtained for their own research.
- c.5. Plan and execute a research project in the field of obstetrics with a consideration to the technical, ethical and safety issues and associated costs.
- c.6. Perform essential laboratory skills that underpin techniques associated with pregnancy diagnosis and hormonal regulation of pregnancy.
- c.7. Efficiently write scientific paper and dissertation.

d- General and Transferable Skills:

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

- d.1. To have the ability to learn independently in preparation for career of lifelong learning.
- d.2. To have information retrieval and library skills.
- d.3. To have interpersonal skills and team working ability by successful completion of collaborative learn assignment and the honors researches project.
- d.4. To present research finding in oral and written form using appropriate software (e.g., power point, word, excel and database)

3- Contents

No.	Topic	Lect./h	Pract./h	Total/h
1	Hormonal control of pregnancy	2	2	4
2	Management of pregnant animal	2	2	4
3	Disturbances of pregnancy	2	2	4
4	Signs & stages of normal parturition	2	2	4
5	Dystocia: causes & manipulations	2	2	4
6	Normal puerperal rhythm	2	2	4
7	Post-parturient uterine infections	2	2	4
	Total	14	14	28

Teaching and Learning

4- Teaching Methods

4.1. Lectures

The department council assigns one of the teaching staff to teach a special chapter in the course syllabus. The entire student will attend one class 3h/week. The teacher will use all the available teaching tools including data show and overhead projectors. The lectures usually take the form of open discussion

4.2. Discussion sessions

The student will be responsible for making a presentation about and discuss one subject (usually related to his thesis subject) in front of all department members

4.3. Information collection

The supervisors will make assignment for their student to collect data and make a complete review about one subject (usually related to his thesis subject).

4.4. Practical training / laboratory

The students will take the practical course 4hours/week under supervision of one of the department member 2 assistants. During the lab the student will do all practical syllabus by them self.

4.5. Research assignment field

The student will be responsible for searching for the most recent research pint and designs a plan for his research work.

4.6. Visits.

The student will chair in some visits to the surrounding villages and /or farms

4.7. Case studies.

The student will chair in diagnosis and handling cases came to the faculty educational hospital.

5- Student assessment methods

- Practical exam to assess professional and practical skills.
- Oral exam to assess knowledge and information and intellectual skills.
- Written exam to assess knowledge, information and intellectual skills.
- Assignments to assess management of clinical cases.

6- Student assessment grade:

Method	Weighting		Evidence
	Mark	%	
Written Examination	50	50	Marked and signed written paper
Oral Examination	20	20	Signed list of oral exam marks
Practical Examination	20	20	Marked and signed practical exam sheet
Seminar	10	10	??????
Total	100	100	

7- List of references

a- Course Notes

- A concise guide of theriogenology.

b- Essential Text Books:

- Animal breeding and infertility, Michael Meredith, 1995.
- Cattle embryo transfer procedure, John Curtis, 1991.
- Clinical obstetrics and gynecology, Lind Heimer, Davidson, 1994.
- Congenital malformations in lab and farm animals, Kalman, 1989.
- Ultrasonography in obstetrics and gynecology, Peter, Callen, 3rd Ed., 1994.

c- Recommended Reference Books:

- Fertility and infertility in veterinary practices, Laing, et al., 4th Ed., 1988.
- Physiology of reproduction and A.I. in cattle, Salisbury, et al., 1985.
- Reproduction in farm animals, Hafez, 7th Ed., 2000
- Veterinary Reproduction and obstetrics, Arthur, et al., 6th Ed., 1989.
- Current therapy in theriogenology, Morrow, 1980

d- Periodicals

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

- Benha veterinary medical journal.
- Veterinary record
- Journal dairy science
- Journal animal science

e- Web sites

- google.Com
- arabvet.com
- esarf.tripod.com/index.html.

f- Facilities required for teaching and learning:

- 1- Video Films.
- 2- Data-show.
- 3- Farm animals for clinical application
- 4- Network for technology transfer.
- 5- Overhead projector.
- 6- Laboratory kits for reproductive biotechnology.
- 7- Computer.
- 8- Field visits.

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Course Co-coordinator:

Head of Department