

Benha University
Faculty of Veterinary Medicine
Department of Theriogenology



Faculty of Veterinary Medicine-Benha University
Department of Theriogenology

**Course Specification for Master Degree
(2010- 2011)**

Course Title: Andrology

قسم التوليد والتناسل والتلقيح الاصطناعي
كلية الطب البيطري-جامعة بنها

Benha University
Faculty of Veterinary Medicine
Department of Theriogenology

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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:	Master 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	Andrology	Code:	MVS-SS2		
Lecture:	2 hours	Practice:	2 hours	Total:	4 hours

B- Professional information:

1- Overall aims of course:

- To prepare qualified graduates be able to efficiently handle infertility problems in males.
- To provide the student of master with at professional skill and attitude in handling recent techniques and diagnostic tools.
- To achieve capability in modern laboratory technology in developing a practical research project.
- To improve the ability of the graduates to apply the acquired knowledge in professional skills for diagnosis infertility problem in male.
- To guide the graduate to be able to understand the self development and the continuous learning.

- To detect and solve male reproductive problems based on scientific and research evidence accompanied with efficient utilization and improving the available resources for achieving the highest benefit.
- To write the dissertation, scientific papers and apply for scientific projects in the field of animal reproduction.
- To develop his communication skills and improve his ability to achieve scientific co-operation in research groups.
- To prepare and upgrade the students for registering to the PhD degrees in field of the theriogenology.

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. Demonstrate advanced research techniques used in the field of theriogenology.
- a.2. Deeply understand the basics of theriogenology research techniques and evaluating the utility of these techniques for specific research question.
- a.3. Recognize concepts about different forms of infertility in male.
- a.4. Prepare the student for understanding the proper animal manipulation and utilization of the most recent diagnostic techniques such as CASA and the use of sperm vital stains.
- a.5. Apply knowledge and understanding of the reproductive efficiency to the critical analysis and discussion of the scientific literature.
- a.6. Be aware of the different procedures that improve the fertility status of the herd.

b- Intellectual Skills:

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

- b.1. Survey, conceptualize and define research problems and questions.

- b.2. Analyze the available information about female reproductive problems.
- b.3. Evaluate their own research data and develop new approach to solve their research questions.
- b.4. Develop creative approaches for solving the technical problems or issues associated with the sustained research projects.
- b.5. Identify, summarize and evaluate prior researches finding in a specific area.
- b.6. Prepare and write a scientific research plan in the field of male reproductive problems.
- b.7. Design a plan for enhancing male reproduction.

c- Professional and Practical Skills:

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

- c.1. Investigate using of recent techniques and tools necessary to evaluate fertility status and diagnose of reproductive failure in farm animals.
- c.2. Select and perform relevant statistical analysis on data obtained for their own research.
- c.3. Have an experience in understanding and interpretation of data which help in improving the economic values following introduction of a new management policy.
- c.4. Apply appropriate intervention plan for male infertility problems.
- c.5. Have the ability for planning and executing a research project in the field of male reproduction with a consideration to the technical, ethical and safety issues and associated costs.
- c.6. To perform essential laboratory skills that strengthen techniques associated with semen biology and male fertility.
- c.7. Evaluate the available and required material, tools and equipment in male reproduction research projects.

d- General and Transferable Skills:

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

- d.1. Participate in workshops and seminars assigned on the reproductive management and reproductive biotechnology at level of the stockholders and veterinary practitioners.
- d.2. Effective communication and use of information technology in the development of veterinary professional practice.
- d.3. Have the ability for understanding and establishing the feasibility study for an enterprise in the dairy process depending on the reproductive biotechnology for breeding.
- d.4. Have a sustainable skill in self and lifelong learning.
- d.5. Present research finding in oral and written from using arrange of appropriate soft ware (e.g. power point, word, excel and database).
- d.6. Demonstrate interpersonal skills and team working ability by successful completion of collaborative learn assignment and researches project.

3- Contents

No.	Topic	Lect./h	Pract./h	Total/h
1	Spermatogenesis & spermiogenesis	2	2	4
2	Male sexual behavior	2	2	4
3	Impotentia eregenti	2	2	4
4	Impotentia queundi	2	2	4
5	Impotentia generundi	2	2	4
6	Sire breeding soundness	2	2	4
7	Sire genetic improvement	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 2h/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 2hours/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 village and /or farms

4.7. Case studies.

The student will chair in diagnosis and handling case came to the faculty external clinic

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
Student activity	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- Experimental animals.
- 4- Teaching hospital.
- 5- Overhead projector.
- 6- Laboratories.
- 7- Computer.
- 8- Field visits.

Date of production and revision: 28/ 11 / 2010

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Course Co-coordinator:

Head of Department