Benha University
Faculty of Veterinary Medicine
Department of Theriogenology

Program Specification for PhD Degree

(2010- 2011)

Program Title: Doctor of Philosophy (Theriogenology)

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A- Administrative information:

1- **Awarding Body:** Benha University
2- **Teaching Body:** Faculty of Veterinary Medicine
3- **Department responsible:** Theriogenology
4- **Program Title:** PhD Degree in Veterinary Science (Theriogenology)
5- **Final award**: PhD Degree
6- **Registration period:** 3-5 years
7- **Program Coordinator:** Prof. Dr.
8- **External evaluator:** not applicable
9- **Date of revision:** 28/ 11 / 2010
10- **Date of approval:** 28/ 11 / 2010

B- Professional information:

1- Aim of the Program:

This PhD program aim to support the postgraduate student ability in:

- Develop communication skills, recent techniques and diagnostic tools in the field of theriogenology and to experience of scientific research skills.

- Achieve capability in modern laboratory technology to develop practical research project.
- Supply the PhD students with the most recent knowledge in science and technological applications of reproduction.
- Demonstrate an awareness of the connections between disciplines and develop the ability to engage critically with scientific literature and to critically review and present their own research data for the protection and promotion of the animal health.
- Have the ability of data statistical analysis, results interpretation and dissertation, presentation skills.
- Continuous working for increasing his knowledge in the field of animal reproduction and to be able to achieve continuous self-learning and experience transfer.
- Exhibit awareness about current veterinary animal reproduction problems and mastering the identification of problems and finding solutions based on sound scientific research concepts by effective utilization of the available resources in addition to improving as well as offering new resources.
- Guarantee of veterinary professional practice regulations and ethics in the field of animal reproduction.

2- Academic standards:

Adapted by the faculty committee for formulating the academic standard for post-graduate using the generic guidelines for post-graduate adapted by NAQAAE.

3-Graduate attributes:

At the end of the program, graduate must be able to:

3.1. Apply the gained specific knowledge and the relevant ones in professional practice.

3.2. Identify the professional problems and suggest solutions of the focus area.

3.3. Show satisfactory interpersonal and communication skills in his professional practice.

3.4. Communicate effectively and lead work team through professional scale.

3.5. Make decision according to the available information

3.6. Use of the available resources efficiently

3.7. Awareness with his role in society development and community preservation.

3.8. Reflects the commitment to act with integrity, credibility, and the rules of profession

3.9. Realize the importance of self and life-long learning.

4-Programme outcomes [intended learning outcomes (ILOs)]

a. Knowledge and understanding:

On successful completion of this program, postgraduate will be able to:

a.1. Recognize the recent theriogenology scientific research principles, regulations, ethics and its different tools.

a.2. Recognize the latest concepts for the proper animal manipulation and utilization of the technology concerning uses of echography in the field of theriogenology

a.3. Apply their knowledge of theriogenology advanced research methods by evaluating the utility of those techniques to specific research question.

a.4. Apply their knowledge and understanding of reproductive efficiency to the critical analysis and discussion of the scientific literature.

a.5. Recognize the importance of infectious causes of infertility in veterinary filed and its great influence on animal production.

a.6. Recognize the different procedures that improve the fertility status of the herd.

a.7. Up to date veterinary professional practice regulations and ethics in the field of animal reproduction.

b. Intellectual skills:

At the end of the program, graduate must be able to:

b.1. Recognize and/or evaluate research troubles and questions and ordering them according to their priority.

b.2. Arrange the scientific approach on revealing any problem related to the field of animal reproduction.

b.3. Evaluate relevant veterinary information and recent publications in the field of animal reproduction for standardization and conclusion.

b.4. Asses risks of infertility problems in the community and make professional decisions to solve these disorders according to the latest scientific materials either via the network connection or the contact with more professional experts and by utilizing the available resources.

b.5. Perform scientific research studies that can give significant impact on the field of animal reproduction.

b.6. Critically evaluate their own research data and develop new approach to solve their research questions.

b.7. Chair and lead scientific open discussion in the field of animal based on evidence.

b.8. Plan for the improvement of animal reproduction performance.

c. Practical and professional skills:

At the end of the program, postgraduate will inquire the ability of:

c.1. Up to date recent skills in the field of animal reproduction research, experimental designing and analysis of their own research project.

c.2. Write professional reports with special emphasis to understanding and interpretation of data which help in improving the economic values following introduction of a new reproductive policy.

c.3. Plan and improvement of research project in the field of theriogenology with a consideration to the technical, ethical and safety issues and associated costs.

c.4. Exploitation of the up to date reproductive technology in professional and research practice.

c.5. Mastery of research skills such as use of libraries and relevant indexing

d. General and transferable skills:

At the end of the programme, graduate must be able to:

d.1. Communicate effectively in different ways, including participation in workshops and seminars and utilizing the advanced information technology in the improvement of animal reproduction professional practice.

d.2. Demonstrate information retrieval and library skills.

d.3. Self assessment and determine their educational needs.

d.4. Lead team under different professional circumstances.

d.5. Demonstrate an ability to learn independently in preparation for career of lifelong learning.

d.6. Present research finding in oral and written from using arrange of appropriate soft ware (e.g. power point, word, excel and database).

5-Teaching and Learning Methods:

The program features a variety of teaching approaches for different intended learning objectives, including lectures, practical and lab sessions, field visits and seminars.

6-Assessments:

The program depends on different assessment ways. Course assessment is made of three elements, written, practical and oral exams. These summative assessment measures to extent student are able to demonstrate knowledge and understanding of the above mentioned points. In addition to summative assessment provide regular feedback through teaching stuff supervision comment on students" essay, seminar and class activity presentation.

7. Program courses

a. Program duration (years):

- PhD degree from 3-5 years.

b. Program structure:

- Courses are given weekly in 2 theoretical hours and 2 practical hours as following:

	Lecture	practical
Principle courses	2	2

According to the research title, three courses will be choice from the following:

Curriculum		Theoretical hours	Practical hours
No.	Course		
	Comparative uro-genital system	2	2
	comparative nervous system & endocrine glands	2	2
	General and special embryology	2	2
	Histology & histochemistry of uro-genital system	2	2
	Mammalian endocrine & reproduction	2	2
	Biochemistry of hormones & reproduction	2	2
	Clinical biochemistry	2	2
	Behavior & management of ruminants	2	2
	Behavior & management of horses	2	2
	Behavior & management of pet animals	2	2
	Basic animal nutrition	2	2
	Clinical nutrition & malnutrition	2	2
	Pathology of reproductive diseases	2	2
	Advanced clinical pathology	2	2
	Systemic bacteriology	2	2
	Advanced immunology	2	2
	Systemic virology	2	2
	Clinical parasitology	2	2
	Systemic pharmacology	2	2
	Pharmacology of hormones	2	2
	Diseases of metabolic disorders	2	2
	Infectious diseases of cattle	2	2

	Infectious diseases of sheep and goat	2	2
	Infectious diseases camel	2	2
	Infectious diseases of equine	2	2
	Infectious diseases of pet animals	2	2
	Infectious diseases buffaloes	2	2
	General toxicology	2	2
	General surgery (advanced)	2	2
	Farm animal hygiene (advanced)	2	2
	Environmental hygiene & pollution	2	2
	Feasibility studies	2	2
	Fish breeding and management	2	2

c. Graduate PhD program course

Code	Course title	No of hours/week		Program ILOs covered by No																									
		Lecture	Practical Lab	a (7)							b (8)								c (5)					d (6)					
118	Gynaecology	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
119	Andrology	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
120	Diseases causing abortion	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
121	Obstetrics	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
122	Reproduction & Immunity	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
123	A.I. in ruminants	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
124	A.I. in equines & pet animals	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
125	Embryo transfer	2	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

a :Knowledge and understanding.

b :Intellectual skills.

c :Professional and practical skills.

d :General and transferable skills.

d. Assessment of program intended learning outcomes.

Tool or method	ILOs
1- Written	a.1, a.2, a.5, a.6
2- Oral	a.1, a.3.a.7
3- Practical	a.3,a.7, c.4,
4- Assignments	a.7, b1, d.5
5- Seminar	a.4, b2,c.1,
6- Qualification exam	a.4, b.3, d.6
7- Published paper	B5, b6, b7, c2
8- Dissertation	b.8, c.5, d.2, d6

e. Program evaluation methods

Evaluator	**Tool**	**Sample**
Postgraduate Student [a]	Questioners	
	Meeting	
	Symposia	
	Seminars	
Postgraduate alumni [a]	Questioners	
	Meeting	
	Symposia	
	Seminars	
Stakeholders (employers) [b]	Questioners	
	Meeting	
	Symposia	
	Seminars	
External evaluator/External examiner	Reports	

[a] All the enrolled and graduated students in this program will share in the evaluation

[b] The employer of the program graduates will share in the evaluation

8. Program Admission Requirements:

The applicant must have a PhD degree in Veterinary Sciences, he will be registered for specialization in one of the Egyptian universities or an equivalent degree from another recognized institutes.

9. Regulations for progression of program

1. Registration period for the Ph. D. programme in veterinary medical science lasts for at least three calendar years after the approval date by the faculty council and it should not exceed a period of five years.
2. An extension could be approved by the faculty council depending on the supervisor report that approved by the department council and the postgraduate & research committee taking into account the provisions of the universities regulation law.
3. The candidate should conduct the supplementary study assigned by the department council and approved by both the postgraduate & research committee and the faculty council.
4. The supplementary study run in three curricula, two of which of his department of specialization and the third out of the department of the selected courses. The applicant will be informed to pass for the exam only after meeting an attendance rate for each curriculum.
5. The applicant should pass written, practical and oral exams successfully in all courses, and the grade will be estimated according to one of the estimates stated in the article (34c).
6. The Faculty council has the right to rob the applicant from entering the exam if this attendance courses is less than 75%. Failure in or depriving from entering one or more course did not requires reexamination of successful passed courses.

7. The applicant should conduct an innovate research on the subject that has been registered for at least 3 years from the date of registration approved by the faculty council. And the faculty council depending on a request from the supervisor has the right to authorize the student to do scientific experiments at recognized scientific institute.
8. The applicant should submit a seminar within 2 years after registration about his research and specialization subject filed that accepted by the committee of professors and assistant professors (3 in number).
9. The applicant should submit the thesis that accepted by the judging committee in an open discussion and the following policies should be met:Pass all supplementary curriculums and acceptance of the seminar presented by the applicant.
10. The applicant should submit 4 copies of his thesis concerned department council to form committee examining the thesis to be presented to the postgraduate studies committee and the faculty council, and incase of thesis approval by the department council, the applicant will submit 6 copies for the faculty library, 1 copy for public university library before introducing the report of examination committee to the post graduate studies committee and the faculty council.
11. Registration will be during March and September of each year. The applicant should submit a request enrolment for the dean who forwards bit to the concerned department council to determine the research subject and the study program and then take calendar after complete documentation on the faculty council for approval.
12. The thesis title should be identified before being submitted at least 2 months e and the judging committee has the right to amend the title without prejudice the subject of research.

13. The Faculty council has the right to suspend the student enrolment for a certain period if he has acceptable excuse preventing him from continuing his study or research, and his period will not counted within the period stated in article 16 and 20.

10. Registration will be cancelled in one of the following cases:

1. If the supervisors report during the registration period is un satisfactory (2 reports).
2. If the applicant does not submit his thesis before the end of registration period.
3. If the judging committee rejected the thesis twice.

After approval:

1- The applicant should submit 10 copies of the thesis after its validity approved by the judging committee to be distributed to the committee members and the faculty library.

2- The judging committee can decide the exchange of the thesis with other universities or printing it on the expense of the university.

11. Examination Regulations

a- Time of written exam, 3 hours for each course that has 3 hours or more for lecture / practical /week. **If has less than 3 hours/week, the time of exam, is 2 hours only.**

b- The final degree of each course which has 3 hours (lecture and practical) per week is **100 and less than 3 hours is 50 degrees and divided into 50% for written exam, and 50% for practical and oral exam.**

12. Marking scale as follow:-

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

13. Program completion:

- Successfully completion of the required courses and submission of a thesis.

14. Evaluation of program outcomes

Code	Evaluator	Tools	Sample
I	Postgraduate students	Questioners	20%
2	Stakeholder	Questioners & Open discussion	10
3	Alumni	Questioners	15
4	External examiners	Questioners	5
5	External evaluators	Questioners & Open discussion	5

Date of production and revision: 28/ 11 / 2010

Date of approval: 28/ 11 / 2010

Course Co-coordinator: **Head of Department:**

Program Specification Matrix (2010-2011)

Post graduate degree: PhD in Veterinary Medical science (Theriogenology)

Name of student: باسم عبدالفضيل جاد محمد **Registration date: Oct. 2010**

Course title	Total Contact hours/ course	No. of hours / week			Program ILOs covered (by No.)			
		Lect.	Lab.	Total	K,U (a)	I.S (b)	P.S (c)	G.T.S (d)
Diseases of female reproductive tract (118)	144	2	2	4	a.1, a.2, a.4, a.5, a.6	b.2, b.4	c.3	d.1, d.2, d.3, d.4, d.5, d.6, d.7
Obstetrics (121)	144	2	2	4	a.3, a.7,	b.1, b.6	c.2, c.4	d.1, d.2, d.3, d.4, d.5, d.6, d.7
Physiology (19)	144	2	2	4	a.6	b.3, b.8	c.1, c.5	d.1, d.2, d.3, d.4, d.5, d.6, d.7
Total	432	6	6	12				

Supervision committee **Signature** **Head of department**

أ.د/ عبد السلام ابراهيم العزب

أ.د/ جمال عبدالرحيم محمد سوسة

أ.د/ سيد على أحمد عيسوى

كلية الطب البيطرى

وحدة ضمان الجودة

Program Specification Matrix (2010-2011)

Post graduate degree: PhD in Veterinary Medical science (Theriogenology)

Name of student: محمد اسماعيل عبد القادر محمد Registration date: Oct. 2010

Course title	Total Contact hours/ course	No. of hours / week			Program ILOs covered (by No.)			
		Lect.	Lab.	Total	K,U (a)	I.S (b)	P.S (c)	G.T.S (d)
Diseases of male reproductive tract (119)	144	2	2	4	a.2, a.5	b.1, b.2, b.4, b.8	c.2	d.1, d.2, d.3, d.4, d.5, d.6, d.7
A.I. in ruminants (123)	144	2	2	4	a.1, a.3, a.6, a.7	b.3, b.5	c.1, c.3, c.4	d.1, d.2, d.3, d.4, d.5, d.6, d.7
Biochemistry of reproductive hormones (30)	144	2	2	4	a.4	b.6	c.5	d.1, d.2, d.3, d.4, d.5, d.6, d.7
Total	432	6	6	12				

Supervision committee **Signature** **Head of department**

أ.د/ محمود السيد عابد ابوالروس

أ.د/ جمال عبدالرحيم محمد سوسة

د/ كريمة غنيمى محمد محمود.