ARS for PhD in Veterinary Medical Sciences (Theriogenology)

1) Graduate attributes

The graduate should have the ability for:

1) Mastering the basics and methodologies of scientific research.
2) Making continuous effort to add knowledge in the field of Theriogenology.
3) Application of analytical and criticizing method in Theriogenology and related areas.
4) Integrating specialized knowledge with related information and extrapolating their interrelationship.
5) Showing deep awareness with the ongoing problems and modern theories in Theriogenology.
6) Identification of professional problems and suggesting innovative solutions of the focus area.
7) Mastering a wide range of professional skills in Theriogenology.
8) Acquiring trends towards developing modern methods and tools in professional practice.
9) Using appropriate technological means to serve professional practice.
10) Effective communication and leading work team through professional scale.
11) Decision making in different professional situations.
12) Employment and development of available resources efficiently and working on finding new ones.
13) Awareness with his role in society development and community preservation.
14) Acting with integrity, credibility and according to the rules of profession.
15) Commitment with continuous self and life-long development and transferring of his knowledge and experience to others.

المقررات التي تحقق المعايير الأكاديمية للبرنامج

Code	Name
621	Physiology of endocrine glands & reproduction in mammals
634	Biochemistry of hormones and reproduction
659	Bacteriology (special)
660	Immunology (advanced)
663	Pathology of reproduction
669	Clinical pathology (advanced)
720	General medicine (advanced)
721	Ruminant animal medicine
722	Equine medicine
723	Pet animal medicine
730	Cattle infectious diseases
731	Sheep and goat infectious diseases
732	Camel infectious diseases

733	Equine infectious diseases
734	Pet animal infectious diseases
744	Gynaecology (specific courses for ruminants, equines and pet animals)
744	Andrology (specific courses for ruminants and pet animals)
745	Obstetrics and diseases in animals
746	Reproduction and immunity
747	Artificial insemination in ruminants
748	Artificial insemination in equines
749	Artificial insemination in birds and pet animals
750	Artificial insemination in rabbit
751	Embryo transfer
752	obstetrics and artificial insemination in wild animals
753	General surgery (advanced)
759	Anesthesiology
760	Diagnostic imaging
772	Combating epidemic diseases
790	Advanced animal breeding and improvement (advanced)

مقارنة ما يقدمه البرنامج من نتائج تعليمية مستهدفة مع المعايير المرجعية القياسية

A) Knowledge and understanding

	Adopted ARS	NARS (Master)
	By the end of this program the graduate should understand and accommodate the following:	***By the end of this program the graduate should understand and accommodate the following:***
1)	Recent theories, principles and knowledge about causes of infertility and recurrent abortion in male and female animals	Recent theories, principles and knowledge in the field of specialization and related areas
2)	Principles and ethics of scientific research in the field of andrology, gynecology and obstetrics.	Basics, methodologies and ethics of scientific research and its different tools
3)	Legal and ethical principles of combating and eradicating infectious diseases affecting reproductive performance of animals.	Legal and ethical principles of professional practice in the area of specialization
4)	Application of his knowledge of theriogenology research methods by evaluating the utility of those techniques to specific research question about diagnosis of certain pathogens	Principles and the basics of quality assurance in the area of professional practice in the field of specialization
5)	Awareness with the effect of reproductive diseases on the animal health and production of milk and meat.	Awareness with the effect of professional practice on the environment and methods of its maintain and development
6)	Recognize the different molecular and serological protocols for identification of reproductive problems	

B) Intellectual skills

	Adopted ARS	NARS (Master)
	By the end of this program the graduate should understand and accommodate the following:	***By the end of this program the graduate should understand and accommodate the following:***
1)	Analyzing and evaluating information in Theriogenology and the eliciting from them	Analyzing and evaluating information in the field of specialization and the eliciting from them
2)	Solving professional problems in diagnosis and control of fertility problems	Solving professional problems using available data
3)	Performing scientific research studies that add to knowledge in Theriogenology	Conducting scientific research studies that add to knowledge
4)	Formulating scientific papers that can give significant impact on the field of animal reproduction.	Formulating scientific papers
5)	Risk assessment 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.	Risk-assessment in the field of specialization
6)	Planning to enhance the performance in the laboratory diagnosis of reproductive problems using molecular techniques.	Planning to enhance the performance in field of specialization
7)	Recognize the problems in the field of Theriogenology and conclude the perfect decision in the perfect time.	Making professional decisions under different professional contexts
8)	Creation and innovative in the area of animal reproduction.	Creation and innovative in the area of specialization
9)	Development of evidence based learning and practice in scientific research	Dialogue and discussion based on evidences and proofs

C) Professional and practical skills

	Adopted ARS	NARS (Master)
	By the end of this program the graduate should understand and accommodate the following:	***By the end of this program the graduate should understand and accommodate the following:***
1)	Mastering basic and modern professional skills in isolation and identification of infectious and non-infectious causes of infertility	Mastering basic and modern professional skills in the area of specialization
2)	Write professional reports with special emphasis on understanding and interpretation of data which help in improving the economic values following introduction of a new reproductive policy.	Writing and evaluating professional reports
3)	Evaluating and modernizing methods and tools in	Evaluating and modernizing methods

	the Theriogenology lab.	and tools in the area of specialization
4)	Using modern technological means to serve protect animals against new viral strains	Using modern technological means to serve professional practice
5)	Plannning and improvement of research project in the field of theriogenology with a consideration to the technical, ethical and safety issues and associated costs	Planning for the improvement of professional practice and developing performance of others

D) General and transferable skill

Adopted ARS		NARS (Master)
	By the end of this program the graduate should understand and accommodate the following:	***By the end of this program the graduate should understand and accommodate the following:***
1)	Effective communication with theriogenolists, students and veterinarians.	Effective communication
2)	Using the sources of biomedical information and communication technology to remain current with advances in knowledge and practice.	Utilizing information technology to serve development of professional practice
3)	Presenting information clearly in written, electronic and oral forms	Teaching others and evaluating their performance
4)	Establishment of life-long self-learning required for continuous professional development.	Self-assessment and continuous learning
5)	Using different resources to obtain knowledge and information	Using different resources to obtain knowledge and information
6)	Team working and leading a team in familiar professional contexts	Team working and leading a team in familiar professional contexts
7)	Management of time and open discussions in the professional field	Management of scientific meetings with the ability to manage time efficiently