



ARS for Master in Veterinary Medical Sciences (Physiology)

Graduate attributes

The graduate should have the ability for:

- (1) Perfect application of scientific research basics and methodologies in Physiology, and using its varied tools.
- (2) Understand and interpret different laboratory reports in health and disease, both in diagnosis and in following up treatment.
- (3) Application of gained specialized knowledge and integrating them with the relevant knowledge in animal Physiology.
- (4) Description and interpretation of the laboratory investigations according to his specialty (Clinical Chemistry, Clinical Hematology, Clinical investigations in Microbiology, cytology or Immunology).
- (5) Selecting appropriate investigations for diagnosis, assessment of prognosis and monitoring of spontaneous animal disease and animal models of disease.
- (6) Mastering the proper scope of a rate specialized professional skills, and using appropriate technological means to serve in the applied physiology.
- (7) Effective communication with students, physiologists and veterinarians, and leading work team in physiology.
- (8) Decision making for suggesting the relation between different systems in the body and coordination between them.
- (9) Use of the available resources efficiently in the development of new techniques and work to find new resources in animal physiology field.
- (10) Awareness with his role in society development and community preservation from the spreading of blood and body fluids diseases in the environment.
- (11) Understand the basics of drug and chemical usage and safety; lab animal management and scientific paper writing.
- (12) Academic and professional self- development and ability for life-long learning and progress by studying new physiological aspects.

المقررات التي تحقق المعايير الأكاديمية للبرنامج

Code	Name
-	Physiology – Basic course
-	Research methodology
602	Comparative nervous system and endocrine glands
609	General and special embryology
619	Histological and histochemical structure of nervous system and endocrine glands
633	Biochemistry of tissues and body fluids
634	Biochemistry of hormones and reproduction

700	Medicinal hormones



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

A) Knowledge and understanding

Adopted ARS		NARS
	<i>By the end of this program the graduate should understand and accommodate the following:</i>	<i>By the end of this program the graduate should understand and accommodate the following:</i>
1)	Basic principles and practice of Physiology, Clinical Chemistry or Clinical Hematology or Microbiology, parasitology, Biochemistry and Pathology	Theories and principles in the field of specialization and related fields.
2)	Basis of diagnostic laboratory hazards on surrounding environment and learn how to maintain clean environment	Mutual effect between professional practice and its impact on environment
3)	Application of his knowledge about recent physiological research methods and its utility.	Scientific progress in the field of specialization
4)	Principles of laboratory safety and regulations (laboratory hazards and protective equipment).	Legal and ethical basics in professional practice in the field of specialization
5)	Application of quality standards in the Veterinary Physiology Laboratory	Principles and basics of quality assurance in the area of specialization
6)	Basics and ethics of scientific research especially that involving laboratory animals	Basics and ethics of scientific research

B) Intellectual skills

Adopted ARS		NARS
	<i>By the end of this program the graduate should understand and accommodate the following:</i>	<i>By the end of this program the graduate should understand and accommodate the following:</i>
1)	Analysis and evaluation of information about animal physiology and different body functions and coordinate with them.	Analysis and judgment of information in the field of specialization and analog to solve problems.
2)	Solving diagnostic problems in the area of animal physiology using available data and recent techniques.	Solving professional problems even in scarcity of data.
3)	Evaluating different laboratory data with normal and reference values and formulating diagnosis after excluding non-specific interpretation	Relating between different knowledge to solve professional problems.
4)	Identification, summarizing and evaluating researches about different physiological aspects and prepare scientific paper.	Preparing research plan in specialization and/ or writing scientific article on a research problem.
5)	Comprehending areas where further researches necessary and be aware of any which would be beyond current ethical cods.	Risk-assessment of professional practices in specialization.
6)	Development of analytical reading skills in	Planning for improvement of

	physiology and clinical pathology research and related diagnostic topics	professional performance.
7)	Using appropriate intellectual strategy and evidence based decisions to deal with laboratory diagnostic problems and make decisions	Taking professional decisions in a variety of professional contexts.

C) Professional and practical skills

Adopted ARS		NARS
	<i>By the end of this program the graduate should understand and accommodate the following:</i>	<i>By the end of this program the graduate should understand and accommodate the following:</i>
1)	Using of recent techniques in endocrinology, animal reproduction, hematology, immunology, digestion and metabolism, neurology, musculoskeletal system and other branches of Physiology	Mastering basic and recent professional skills in the field of specialization
2)	Application of the principles of good experimental design and analysis to their own research project and evaluating physiological reports	Writing and evaluating professional reports.
3)	Planning a research project in the field of veterinary physiology using suitable materials and methods in the area of specialization.	Evaluating existing materials and methods in the area of specialization.
4)	Using modern technological means to serve animal laboratory diagnosis for different physiological parameters	Using modern technological means to serve professional practice

D) General and transferable skill

Adopted ARS		NARS
	<i>By the end of this program the graduate should understand and accommodate the following:</i>	<i>By the end of this program the graduate should understand and accommodate the following:</i>
1)	Communicating effectively with teaching staff, colleagues and the community.	Effective communication.
2)	Using information technology in scientific research and publications.	Utilizing information technology to serve development of professional practice.
3)	Demonstrating appropriate attitude towards teaching staff and colleagues.	Self-assessment and determination of personal educational needs.
4)	Identifying and use different sources of information and knowledge.	Using different resources to obtain knowledge and information.
5)	Using appropriate attitude and rules towards teaching staff and colleagues and use evidence based evaluations.	Establishing rules and indicators for assessment of the performance of others.
6)	Respecting the importance of team work.	Team working and leading a team in familiar professional contexts.
7)	Doing good control of timing.	Efficient time management.

