ARS for Master in Veterinary Medical Sciences (Pathology)

Graduate attributes

The graduate should have the ability for:

(1 Perfect application of scientific research basics and methodologies in Pathology, and using its varied tools.
(2 Application and use of analytical methods in detection of pathological causes of diseases.
(3 Application of gained specialized knowledge and integrating them with the relevant knowledge in histopathological diagnosis of animal diseases.
(4 Awareness with pathological problems and recent concepts concerning the pathogenesis of infectious and non-infectious diseases.
(5 Identification of pathological problems and suggesting suitable and economic methods of diagnosis of animal affections.
(6 Mastering the proper scope of a rate of specialized professional skills, and using appropriate technological means to serve the diagnosis of diseases caused by different pathogens or by nutritional deficiency.
(7 Effective communication with students, pathologists and animal owners and leading work team.
(8 Decision making for suggesting the cause of disease.
(9 Employ available resources efficiently in collecting macroscopical and microscopical findings.
(10 Awareness with his role in society development and fighting toxicological pollution and outbreaks in farm animals.
(11 Reflection of the commitment to act with integrity, credibility and the rules of profession.
(12 Academic and professional self- development and ability for life-long learning and progress by studying pathological cases.

المقررات التي تحقق المعايير الأكاديمية للبرنامج

Code	Name
-	Pathology – basic course
-	Research Methodology
612	General histology
619	Avian histology
620	Circulatory and immune systems
740	General toxicology
741	Environmental toxicology
761	Bacterial diseases of poultry
762	Viral diseases of poultry

763	Mycotic diseases of poultry
764	Parasitic diseases of poultry
765	Nutritional deficiency diseases
811	Microbial aquatic diseases (specific courses)
812	Parasitic aquatic diseases (specific courses)
813	Non-infectious aquatic diseases (specific courses)
730	Cattle infectious diseases
731	Sheep and goat infectious diseases
732	Camel infectious diseases
733	Equine infectious diseases
734	Pet animal infectious diseases

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

A) Knowledge and understanding

	Adopted ARS	NARS
	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)	Theories and principles in the field of histopathology, histochemistry and related fields.	Theories and principles in the field of specialization and related fields.
2)	The host pathogen relationship and microbial pathogenesis and their impact on environment	Mutual effect between professional practice and its impact on environment
3)	Scientific progress in the field of veterinary pathology	Scientific progress in the field of specialization
4)	Legal and ethical basics in professional practice in the field of pathology	Legal and ethical basics in professional practice in the field of specialization
5)	Safety measures and basics of quality assurance in Pathology lab.	Principles and basics of quality assurance in the area of specialization
6)	Basics and ethics of scientific research especially that involving laboratory animals or virulent pathogenic strains of bacteria and viruses	Basics and ethics of scientific research

B) Intellectual skills

	Adopted ARS	NARS
	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)	Analysis of macroscopical and microanatomical findings to reach the correct diagnosis	Analysis and judgment of information in the field of specialization and analog to solve problems.
2)	Diagnosis of causes of disease conditions even with rare information.	Solving professional problems even in scarcity of data.
3)	Development of creative approaches to solve	Relating between different knowledge to

	technical problems or issues associated with researches projects.	solve professional problems.
4)	Design research plan in Pathology and publishing scientific papers	Preparing research plan in specialization and/ or writing scientific article on a research problem.
5)	Assessing risk during necropsy of animals dying from infectious diseases	Risk-assessment of professional practices in specialization.
6)	Development of plans to improve performance in Pathology practice with automation.	Planning for improvement of professional performance.
7)	Using appropriate intellectual strategy to deal with laboratory diagnostic problems.	Taking professional decisions in a variety of professional contexts.

C) Professional and practical skills

	Adopted ARS	NARS
	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)	Using of recent techniques and tools necessary to diagnose and characterize causes of diseases by microscopical and ultrastructural investigations.	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	Writing and evaluating professional reports.
3)	Performing essential laboratory skills that underpin techniques associated with sampling, processing, staining and microscopical examination	Evaluating existing materials and methods in the area of specialization.

D) General and transferable skill

	Adopted ARS	NARS
	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)	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.
8)	Performing continuous self-learning.	Self and continuous learning.