

Veterinary Medicine Master's Degree **Day-One Skills**

Professional general attributes and capacities

The newly-graduated veterinarian must:

1- Know the national and European ethic and professional regulations of the veterinary activity.

2- Be able to perform the professional acts in a responsible manner, complying with the regulations and being aware of the veterinary professional ethic responsibilities with regard to clients and their animals, authorities, the general public as well as their potential impact on the environment.

3- Use one's professional capabilities to contribute, as far as possible, to the advancement of veterinary knowledge, in order to benefit veterinary practice and further improve the quality of the services to the general public, the animal welfare and the protection of public health.

4- Know the veterinary institutions, organisms and services of Portugal and the European Union.

5- Have an elementary knowledge of the organization and management of veterinary services, including:

a) Awareness of own and employer's responsibilities in relation to employment, health and safety;

b) Awareness of the legal principles and good practices of clinical records and records of veterinary drugs use.

c) Awareness of how fees are calculated and invoices drawn up, and the importance of following the practice's systems for record keeping and book-keeping, including case reports, production records in both hard and computer format.

6- Hear and communicate in a cordial way. Communicate effectively with clients, professional colleagues, authorities, organisms, and the lay public, using language in a form appropriate to the audience and the context.

7- Efficiently use the new technologies in the communication, share, collection and analysis of information.

8- Prepare clear reports and maintain records in all areas of veterinary services in a rigorous and understandable form both for colleagues and the public.

9- Develop self-evaluation abilities and be able to interpret and adapt to peer-evaluation.

10- Understand the need for a commitment to continuing education and training, both in basic sciences and specialization areas of the veterinary profession, throughout one's professional life.

11- Be aware of personal limitations and demonstrate awareness of when and where to seek advice, assistance and support, refraining to execute procedures to which one has no skills.

12- Work effectively as a member of a multi-disciplinary team.

13- Be able to cope with uncertainty and adapt to change.

14- Be aware of the socio-economic and emotional climate in which the veterinary surgeon operates, and respond appropriately to the influence of such pressures.

Knowledge and understanding

The newly-graduated veterinarian will need to have acquired a thorough knowledge and understanding of the following:

- 1- The sciences and technologies on which the veterinary activities are based.
- 2- The research methods and the contribution of basic and applied research to all aspects of veterinary science.
- 3- The methods of data collection, treatment and biostatistics application.
- 4- The structure and functions of healthy animals and their husbandry.
- 5- The legislation regarding animal welfare, including production, transport and slaughter for human consumption.
- 6- The aetiology, pathogenesis, clinical signs, lesions, diagnosis and treatment of the common diseases and disorders that occur in the common domestic species in the EU.
- 7- The medicines legislation and guidelines on responsible use of medications as applied in the EU.
- 8- The principles of disease prevention, including zoonoses, and promotion of animal health and welfare.
- 9- The legislation regarding animal health requirements, including disease eradication and control programmes.
- 10- The essentials of the Common Agricultural Policy, market measures, restrictions to exportation and fraud detection.
- 11- The essentials of food processing and food technology.
- 12- The essentials of food quality evaluation in regard to food hygiene and safety, nutritional value, sensory aspects, storage stability, convenience, economical value and social perceptiveness.

13- The national and european legislation regarding veterinary conduct for the prevention and control of food-derived hazards in human health.

14- The principles and methods of microbiological, parasitic, chemical, physical and biotechnological risk-analysis of animal food products, and the application of the control tools and promotion of food safety.

15- The objectives, nature and frequency of inspection procedures during the slaughter of domestic ungulates, poultry, lagomorphs, farm and wild game, and the corresponding decisions in the case of non-compliance.

16- The environmental issues of the veterinary profession, including solid and liquid waste management.

Practical competences

The newly-graduated veterinarian should be able to undertake the following:

1- Evaluate and implement health and welfare records, as well as production records, when relevant.

2- Obtain an accurate and detailed history of the individual animal or animal group, and evaluate its/their husbandry and environment.

3- Handle and restrain an animal safely and humanely, and instruct others in performing these techniques.

4- Perform a complete clinical examination of the most common domestic species.

5- Attend all common domestic animals in an emergency and perform basic first aid and life-support procedures, including haemorrhage, wounds, breathing difficulties, ear and eye injuries, unconsciousness, clinical deterioration, burns, tissue damage, internal organ damage and cardiac arrest.

6- Assess correctly the health status of an animal and be able to advise its owner on the principles and practice of husbandry, according to the species needs and status at the moment.

7- Apply the reproductive biotechnology techniques according to specific situations and needs, in an ethical and safe way.

8- Plan, implement and execute preventive, prophylactic and bio-safety programs for the most common domestic species, according to the standards of health, welfare and public health protection.

9- Select the appropriate ancillary diagnostic tests according to the list of differential diagnosis, its utility, cost and benefit in the pursue of the diagnostic and treatment, being able to adapt to the specificities of the animal status, as well as economical, emotional and practical owner constraints.

10- Collect, preserve and transport samples, perform standard laboratory tests and interpret the results of the most common diagnostic tests in domestic animal's clinical practice.

11- Use technical equipment (radiographic, ultrasonic, magnetic) safely and accordingly to legal regulations.

12- Follow the appropriate actions upon diagnosis of infectious diseases, diseases under specific schemes for eradication or control, and zoonoses.

13- Access the appropriate sources of data on licensed medicines; prescribe and administer medicines correctly and responsibly in accordance with relevant legislation and ensure that medicines and waste are safely stored and/or disposed of.

14- Correctly apply principles of disinfection of infrastructures, surgical equipment sterilization and asepsis.

15- Safely and correctly apply sedation; general, regional and local anaesthesia; and chemical methods of restrain. Correctly evaluate and control pain.

16- Correctly perform the commonest surgical procedures in domestic animals.

17- Recognise when euthanasia is necessary and perform it humanely, using appropriate methods with due regard to its safety, execution conditions and other relevant aspects.

18- Perform a basic gross post mortem examination, record details, sample tissues, store and transport them accordingly to its hazard potential.

19- Promote the appropriate processing of animal carcasses and other biological waste, according to the environment protection regulations.

20- Perform the appropriate inspection acts during domestic ungulates, poultry, lagomorphs, farm and wild game slaughter, including:

- a) Assess and interpret relevant information from the records of the holding of provenance of animals intended for slaughter, using them properly when carrying out ante- and post-mortem inspection;
- b) Perform an ante-mortem inspection of all animals before slaughter;
- c) Assess, accordingly to the previous procedures, the nature and degree of the necessary actions for the protection of intervening persons and prevention of facilities contamination;
- d) Verify continuous compliance with hygiene requirements during slaughtering;
- e) Inspect, during and after slaughter, the carcasses and related offal;
- f) Determine complementary laboratory tests, when needed;
- g) Supervise health marking and the marks used;
- h) Document and classify the rejection motives, according to its cause or origin;
- i) Evaluate the need and utility of inspection results to the food business operator and competent authorities.

21- Verify and implement sanitary procedures and hygienic requirements for the safety of food products of animal origin.

22- Implement the official plans for passive and active surveillance and eradication of enzootic and epizootic diseases.

23- Plan and perform auditoria to food companies, according to the type and throughput of the processes carried out as well as the estimated human and animal health risk, including:

- a) Systematically verify legal compliance of its operating conditions;
- b) Assess the collection of samples obtained for the evaluation of the hygiene and food safety procedures;
- c) Interpretation of laboratory assays and verification of legal compliance;
- d) Document collected data and propose correction actions.