**Veterinary Specialization Commission of Poland**

**Specialization No. 7**

**Field of specialization: Laboratory Animal Medicine**

**National Head of Laboratory Animal Medicine Specialization: prof. dr hab. Józef Szarek**

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Specialization training lasts 4 terms (two years);

Number of hours

lectures: at least 149,

seminars: at least 75,

practice: at least 53,

Total: 277.

**Framework programme**

1. Legal and ethical bases of specialization and the profession of veterinarian.

6 issues (1 – 7) – 32 h.

2. Health, biology, rearing and breeding of laboratory animals.

13 issues (8 – 19) – 48 h.

3. Health and safety of laboratory animals.

10 issues (20 – 30) –78 h.

4. Conducting treatments on laboratory animals.

5 issues (31 -36) – 53 h.

5. Planning and organization as well as statistics and documentation in research experiments.

9 issues (37 -45) – 56 h.

**Total: 46 issues – 277 hours**

**Detailed programme**

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| **No.** | **Subjects** | **Number of hours** |
| **lectures** | **semi-nars** | **practices** |
| 1. | Legal issues of specialization and of performing the profession of veterinarian. | 5 | 1 |  |
| 2. | Experiments conducted on animals in the historical and legal perspective – an animal as a model in a scientific research, applicable regulations with control of breeders 'and users' activities and penalties. | 4 | 1 |  |
| 3. | Legal protection of laboratory animals in breeding and experiment.  | 6 | 1 |  |
| 4. | Ethical aspects of the use of laboratory animals, including ethical principles regarding the relationship between humans and animals and the value of animal life. Models of argumentation.  | 3 | 1 | 1 |
| 5. | Occupational, civil and criminal responsibility of veterinarian.  | 2 |  |  |
| 6. | The rules of veterinary ethics and deontology | 2 |  |  |
| 7. | Veterinarian as an expert witness in judicial proceedings.  | 3 | 2 |  |
| 8. | Welfare of laboratory animals. The 3R principle (refining, reducing, replacing). | 2 | 1 |  |
| 9. | Designing and servicing of animal houses, hygiene rules. | 3 | 1 | 2 |
| 10. | The zoohygienic conditions, taking into account standards for the maintenance of laboratory animals and species biology. Daily care of animals.  | 3 | 2 | 1 |
| 11. | Health and hygiene of animals intended for use or used in procedures. | 2 | 1 |  |
| 12. | Laboratory animals before an experiment and in a research - preparing animals for procedures and handling them.  | 2 | 1 | 1 |
| 13. | Selected issues of anatomy and physiology of laboratory animals, including the behavior of animals with recognition of signs of distress, pain and suffering characteristic of the species. | 3 | 1 | 2 |
| 14. | Taxonomy of amphibians and reptiles and physiology of their gastrointestinal, respiratory and reproductive systems.  | 3 |  |  |
| 15. | Methods of breeding (conventional, SPF, gnotobionts), including genetics. Transgenic animals. | 4 | 2 |  |
| 16. | Feeding of laboratory animals. | 2 | 2 |  |
| 17. | Selected issues of embryology of laboratory animals.  | 1 | 1 |  |
| 18. | Immunology of laboratory animals. | 2 | 1 |  |
| 19. | The immunological system and defense mechanisms of amphibians and reptiles.  | 2 |  |  |
| 20. | Deficiency-induced diseases. | 2 | 1 |  |
| 21. | Diseases of laboratory animals induced by biological factors. Safety rules for working with animals. | 10 | 2 |  |
| 22 | Bacterial, viral, mycotic and parasitic diseases of amphibians, reptiles and fish.  | 5 |  |  |
| 23. | Tumours of laboratory animals. | 3 | 2 | 1 |
| 24. | Selected issues of clinical pathology. | 6 | 3 | 1 |
| 25. | Zoonoses with safety rules for working with animals. | 2 | 1 |  |
| 26. | Laboratory diagnostics of viral, bacterial and parasitic infections.  | 4 | 2 | 2 |
| 27. | Morphological diagnosis | 3 | 2 | 2 |
| 28. | Monitoring the health status of laboratory animals (including X-ray and ultrasound). | 4 | 2 | 4 |
| 29. | Prevention and treatment of diseases of laboratory animals. | 4 | 3 |  |
| 30 | Treatment of small exotic animals.  | 7 |  |  |
| 31. | Prevention and abolition of pain in an animal, including the influence of anesthetic agents and analgesia on the result of the experiment.  | 2 | 2 |  |
| 32. | Dosage and modes of administration of pharmacological products.  | 3 | 1 | 2 |
| 33. | Providing specialist services to scientific research in respect to pre- and post-operational care.  | 2 | 2 | 2 |
| 34. | Anaesthesia for surgical treatments, including methods of pain relief.  | 3 | 2 | 6 |
| 35. | Surgery (commonly applied techniques).  | 6 | 4 | 8 |
| 36. | Initial activities for euthanasia using known methods of killing and determining the death of animals. Humanitarian euthanasia of animals.  | 5 | 1 | 2 |
| 37. | Basics of planning procedures and experiments, implementation of research projects using laboratory animals. | 4 | 2 | 3 |
| 38. | Humanitarian use of animals in biomedical studies and the search for alternatives.  | 2 | 1 | 2 |
| 39. | Experimental models.  | 8 | 4 | 2 |
| 40. | Work with a computer - learning how to use computer databases. | 1 | 1 | 1 |
| 41. | Local Ethical Commission and National Ethical Commission – tasks and documentation. Preparation of information to assess the retrospective experience. | 3 | 3 | 4 |
| 42. | Counseling and advice in adhering to legal requirements during experiments on laboratory animals. | 2 | 1 | 1 |
| 43. | Control and management of veterinary waste.  | 2 | 1 | 1 |
| 44. | Documentation in the animal house, including the preparation of information on experiments on animals, including statistical information, in accordance with the applicable law. | 1 | 1 | 1 |
| 45. | Principles of training of technical and support staff.  | 1 | 2 | 16 |
| 46. | Consultations related to the exam. |  | 10 |  |
| **Total number of hours of particular activities** | **149** | **75** | **53** |
| **Total number of hours** | **277** |